

10/767784

=> file registry

FILE 'REGISTRY' ENTERED AT 13:51:39 ON 02 MAY 2007

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STRUCTURE FILE UPDATES: 1 MAY 2007 HIGHEST RN 934050-43-8

DICTIONARY FILE UPDATES: 1 MAY 2007 HIGHEST RN 934050-43-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

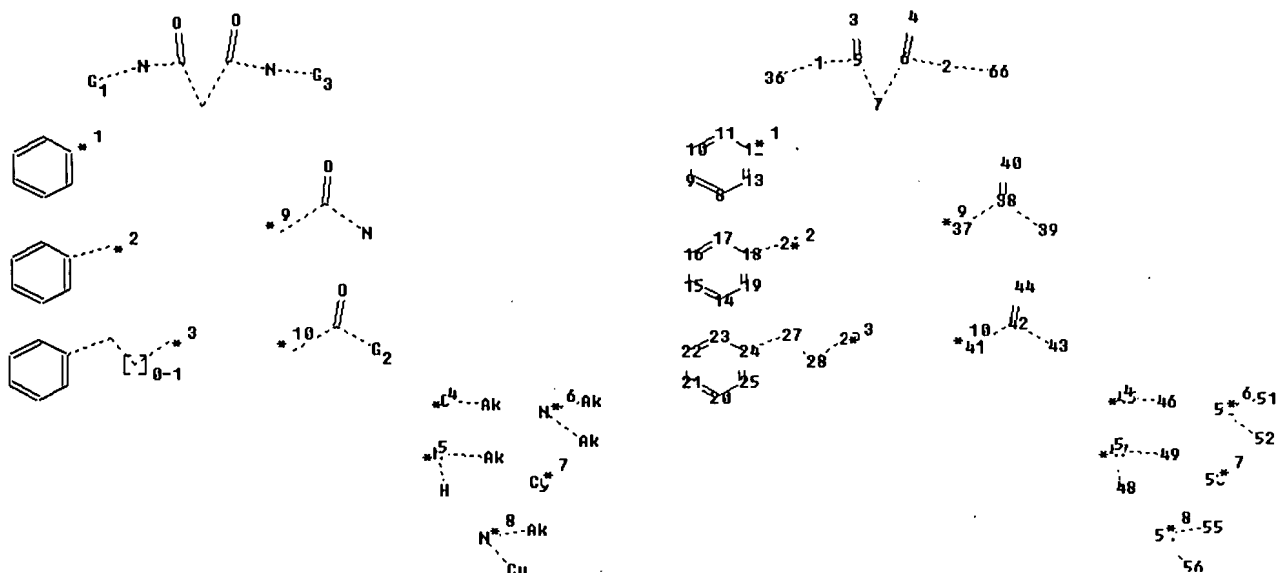
TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

Uploading L1.str



chain nodes :

1 2 3 4 5 6 7 36 40 41 42 43 44 45 46 47 48 49 50 51 52 53  
54 55 56 66

ring nodes :

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 37 38 39

ring/chain nodes :

```

26 27 28 29
chain bonds :
1-5 1-36 2-6 2-66 3-5 4-6 5-7 6-7 18-26 24-27 38-40 41-42 42-43 42-44
45-46 47-48 47-49 50-51 50-52 54-55 54-56
ring/chain bonds :
27-28 28-29
ring bonds :
8-9 8-13 9-10 10-11 11-12 12-13 14-15 14-19 15-16 16-17 17-18 18-19 20-
21
20-25 21-22 22-23 23-24 24-25 37-38 38-39
exact/norm bonds :
1-5 1-36 2-6 2-66 3-5 4-6 5-7 6-7 18-26 24-27 27-28 28-29 37-38 38-39
38-40 41-42 42-43 42-44 45-46 47-48 47-49 50-51 50-52 54-55 54-56
normalized bonds :
8-9 8-13 9-10 10-11 11-12 12-13 14-15 14-19 15-16 16-17 17-18 18-19 20-
21
20-25 21-22 22-23 23-24 24-25

```

G1:[\*1],[\*2],[\*3]

G2:[\*4],[\*5],[\*6],[\*7],[\*8]

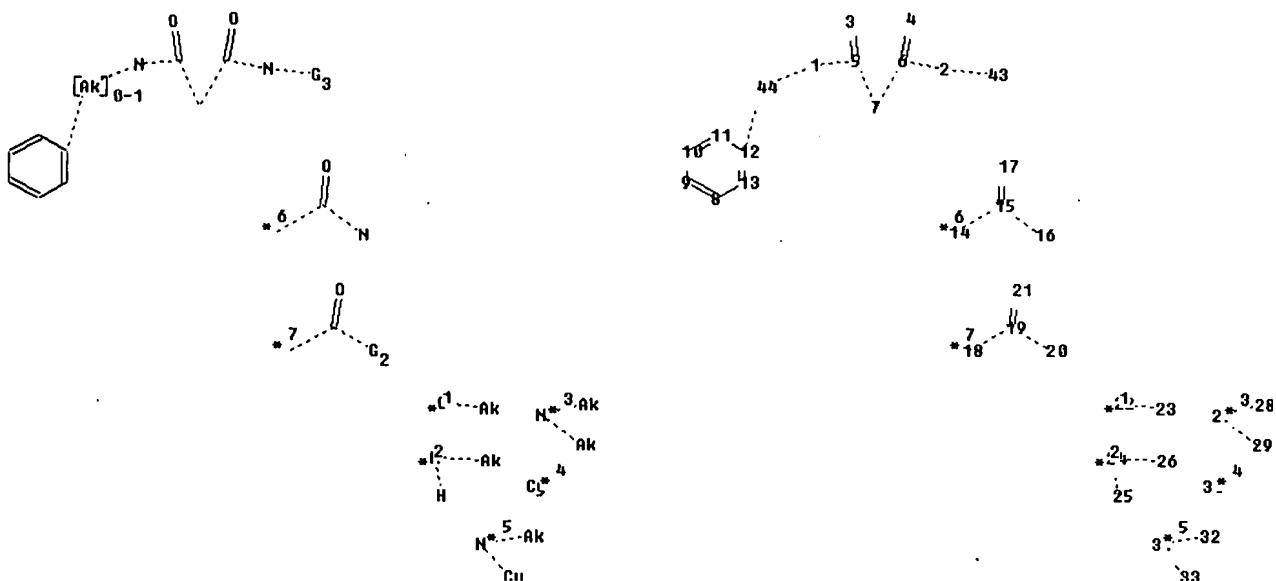
G3:[\*9],[\*10]

```

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:Atom 9:Atom
10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom
22:Atom 23:Atom 24:Atom 25:Atom 26:CLASS 27:CLASS 28:CLASS 29:CLASS
36:CLASS 37:Atom
38:Atom 39:Atom 40:CLASS 41:CLASS 42:CLASS 43:CLASS 44:CLASS 45:CLASS
46:CLASS 47:CLASS
48:CLASS 49:CLASS 50:CLASS 51:CLASS 52:CLASS 53:Atom 54:CLASS 55:CLASS
56:Atom 66:CLASS

```

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```

chain nodes :
1 2 3 4 5 6 7 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
32 33 43 44
ring nodes :
8 9 10 11 12 13 14 15 16
chain bonds :
1-5 1-44 2-6 2-43 3-5 4-6 5-7 6-7 12-44 15-17 18-19 19-20 19-21 22-23
24-25 24-26 27-28 27-29 31-32 31-33
ring bonds :
8-9 8-13 9-10 10-11 11-12 12-13 14-15 15-16
exact/norm bonds :
1-5 1-44 2-6 2-43 3-5 4-6 5-7 6-7 12-44 14-15 15-16 15-17 18-19 19-20
19-21 22-23 24-25 24-26 27-28 27-29 31-32 31-33
normalized bonds :
8-9 8-13 9-10 10-11 11-12 12-13
isolated ring systems :
containing 8 :

```

```
G2:[*1],[*2],[*3],[*4],[*5]
```

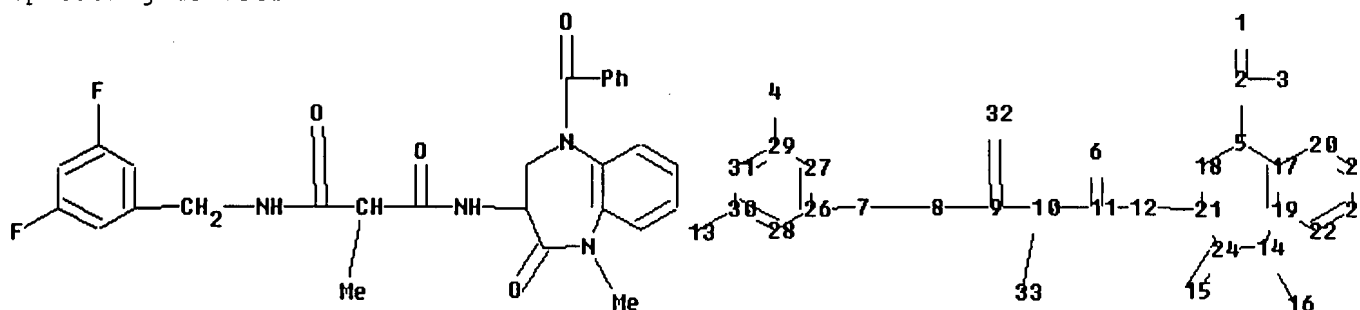
```
G3:[*6],[*7]
```

```

Connectivity :
44:2 E exact RC ring/chain
Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:Atom 9:Atom
10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS 18:CLASS 19:CLASS
20:CLASS
21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS
29:CLASS 30:Atom
31:CLASS 32:CLASS 33:Atom 43:CLASS 44:CLASS

```

Uploading L34.str



chain nodes :

1 2 3 4 6 7 8 9 10 11 12 13 15 16 32 33

ring nodes :

5 14 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

chain bonds :

1-2 2-5 2-3 4-29 6-11 7-8 7-26 8-9 9-10 9-32 10-11 10-33 11-12 12-21  
13-30 14-16 15-24

ring bonds :

5-17 5-18 14-19 14-24 17-19 17-20 18-21 19-22 20-23 21-24 22-25 23-25  
26-27 26-28 27-29 28-30 29-31 30-31

exact/norm bonds :

1-2 2-5 5-17 5-18 6-11 8-9 9-32 11-12 12-21 14-19 14-24 15-24 18-21  
21-24

exact bonds :

2-3 4-29 7-8 7-26 9-10 10-11 10-33 13-30 14-16

normalized bonds :

17-19 17-20 19-22 20-23 22-25 23-25 26-27 26-28 27-29 28-30 29-31 30-31

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:CLASS  
10:CLASS

11:CLASS 12:CLASS 13:CLASS 14:Atom 15:CLASS 16:CLASS 17:Atom 18:Atom

19:Atom 20:Atom

21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom

30:Atom 31:Atom

32:CLASS 33:CLASS

=> d ide L33

L33 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

RN 741672-69-5 REGISTRY

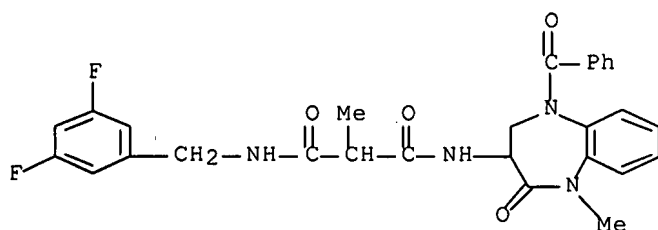
ED Entered STN: 09 Sep 2004

CN **Propanediamide, N-(5-benzoyl-2,3,4,5-tetrahydro-1-methyl-2-oxo-1H-1,5-benzodiazepin-3-yl)-N'-[(3,5-difluorophenyl)methyl]-2-methyl- (9CI)**  
(CA INDEX NAME)

MF C28 H26 F2 N4 O4

SR CA

LC STN Files: CA, CAPLUS, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> => file marpat

FILE 'MARPAT' ENTERED AT 13:57:06 ON 02 MAY 2007

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FILE CONTENT: 1961-PRESENT VOL 146 ISS 18 (20070427/ED)

SOME MARPAT RECORDS ARE DERIVED FROM INPI DATA FOR 1961-1987

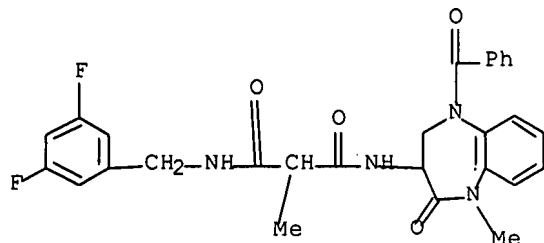
MOST RECENT CITATIONS FOR PATENTS FROM MAJOR ISSUING AGENCIES  
(COVERAGE TO THESE DATES IS NOT COMPLETE):

|    |              |             |
|----|--------------|-------------|
| US | 2007060644   | 15 MAR 2007 |
| DE | 102006023116 | 15 MAR 2007 |
| EP | 1762248      | 14 MAR 2007 |
| JP | 2007059877   | 08 MAR 2007 |
| WO | 2007030662   | 15 MAR 2007 |
| GB | 2429975      | 14 MAR 2007 |
| FR | 2890657      | 16 MAR 2007 |
| RU | 2295953      | 27 MAR 2007 |
| CA | 2556850      | 24 FEB 2007 |

Expanded G-group definition display now available.

=> d stat que L38

L34 STR



Structure attributes must be viewed using STN Express query preparation.

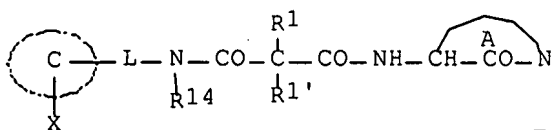
L37 2 SEA FILE=MARPAT SSS FUL L34  
L38 1 SEA FILE=MARPAT ABB=ON PLU=ON L37/COM

=> d ibib abs qhit L38 1

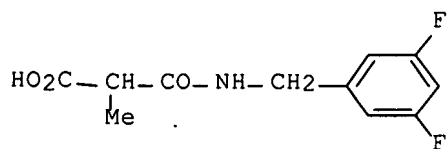
L38 ANSWER 1 OF 1 MARPAT COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 141:206827 MARPAT Full-text  
TITLE: Preparation of malonamides and related compounds as  
gamma-secretase inhibitors for the treatment of  
Alzheimer's disease.  
INVENTOR(S): Galley, Guido; Goergler, Annick; Jacobsen, Helmut;  
Kitas, Eric Argirios; Peters, Jens-Uwe  
PATENT ASSIGNEE(S): F. Hoffmann-La Roche A.-G., Switz.  
SOURCE: PCT Int. Appl., 85 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND   | DATE     | APPLICATION NO.  | DATE     |
|------------------------|--|----------|------------------|----------|
| WO 2004069826          | A1   | 20040819 | WO 2004-EP674    | 20040127 |
| W:                     | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI |          |                  |          |
| RW:                    | BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG                                 |          |                  |          |
| AU 2004210036          | A1   | 20040819 | AU 2004-210036   | 20040127 |
| CA 2514267             | A1   | 20040819 | CA 2004-2514267  | 20040127 |
| EP 1592684             | A1   | 20051109 | EP 2004-705404   | 20040127 |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK   |          |                  |          |
| BR 2004007262          | A  | 20060131 | BR 2004-7262     | 20040127 |
| CN 1745076             | A  | 20060308 | CN 2004-80003305 | 20040127 |
| JP 2006516556          | T  | 20060706 | JP 2006-500017   | 20040127 |
| US 2004220222          | A1   | 20041104 | US 2004-767784   | 20040129 |
| NO 2005003627          | A  | 20050810 | NO 2005-3627     | 20050726 |
| PRIORITY APPLN. INFO.: |  |          | EP 2003-2190     | 20030204 |
|                        |  |          | WO 2004-EP674    | 20040127 |

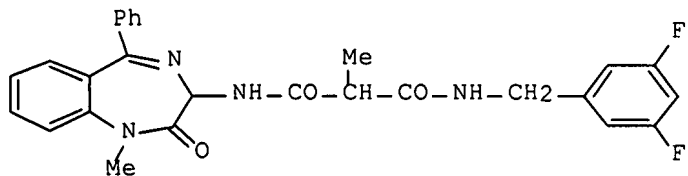
GI



I



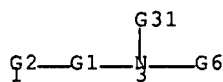
II



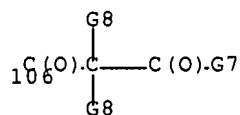
III

AB Title compds. I [L = bond, (CH<sub>2</sub>)<sub>1-2</sub>, CH(CH<sub>3</sub>), etc.; C = cyclic ring, e.g., Ph, pyridinyl, furanyl, etc.; X = (R<sub>2</sub>)<sub>1,2,3</sub>; (R<sub>2</sub>)<sub>1,2,3</sub> = H, OH, halo, etc.; R<sub>1</sub>, R<sub>1</sub>' = H, alkyl, halo, etc.; R<sub>14</sub> = H, alkyl, (CH<sub>2</sub>)<sub>2</sub>OH, etc.; A = substituted 5,7-dihydro-6H-dibenz[b,d]azepin-6-ones, 1,3-dihydro-5-phenyl-1,4-benzodiazepin-2-ones, 3,4-dihydro-2-quinolinones, etc.] and their pharmaceutically acceptable salts and formulations were prepared. For example, coupling of 3-amino-1,3-dihydro-1-methyl-5-phenyl-2H-1,4-benzodiazepin-2-one and malonic acid II, e.g., prepared from di-Et Me malonate in 3-steps, afforded malonamide III in 67% yield. In  $\gamma$ -secretase inhibition assays, 37-examples of compds. I exhibited IC<sub>50</sub> values ranging from 0.003-0.11  $\mu$ M, the IC<sub>50</sub> value of malonamide III was 0.83  $\mu$ M. Compds. I are claimed useful for the treatment of Alzheimer's disease.

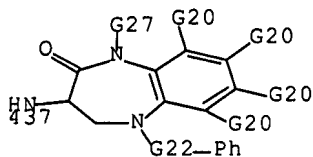
#### MSTR 1



G1 = CH<sub>2</sub>  
 G2 = Ph (opt. substd. by (1-3) G3)  
 G3 = F  
 G6 = 106



G7 = 437



G8 = alkyl <containing 1-6 C>

G22 = C(O)

G27 = Me

Patent location: claim 1

Note: and pharmaceutically suitable acid addition salts

Note: also incorporates claim 16

Note: substitution is restricted

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FILE 'REGISTRY' ENTERED AT 14:00:33 ON 02 MAY 2007

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STRUCTURE FILE UPDATES: 1 MAY 2007 HIGHEST RN 934050-43-8

DICTIONARY FILE UPDATES: 1 MAY 2007 HIGHEST RN 934050-43-8

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TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

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<http://www.cas.org/support/stngen/stndoc/properties.html>

=> file caplus

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PCL XL error

Subsystem: USERSTREAM

Error: MissingData

Operator: 0x0

Position: 0

PCL XL error

Subsystem: KERNEL

Error: StreamUndefined

Operator: 0x0

Position: 0

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DICTIONARY FILE UPDATES: 1 MAY 2007 HIGHEST RN 934050-43-8

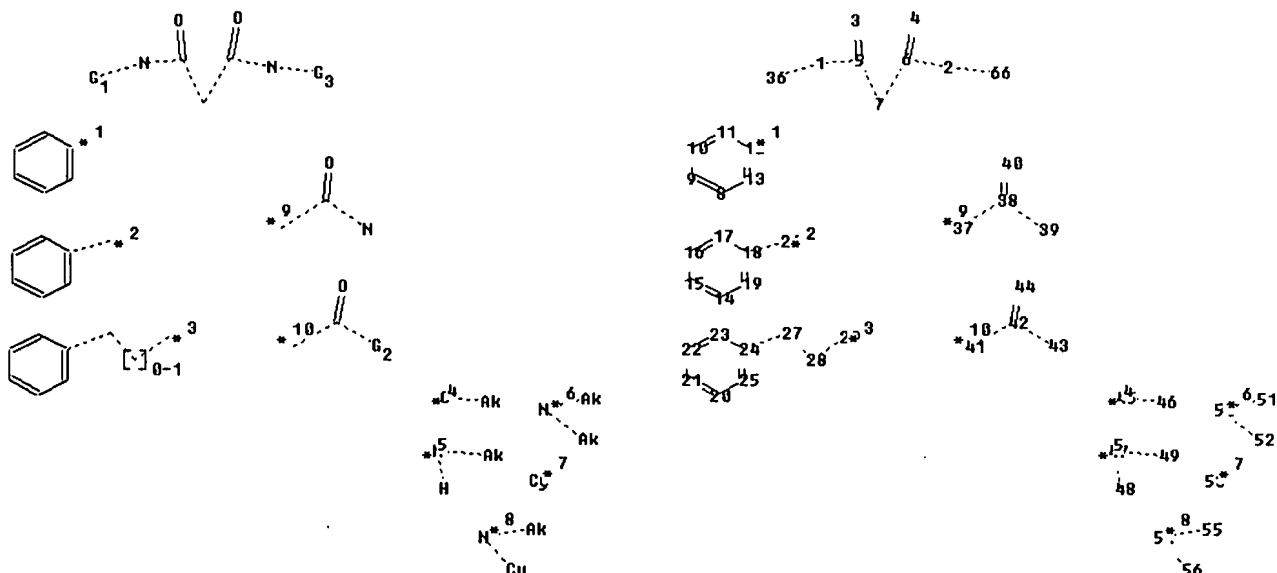
TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stdoc/properties.html>

Uploading L1.str



8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 37 38 39

ring/chain nodes :

```

26 27 28 29
chain bonds :
1-5 1-36 2-6 2-66 3-5 4-6 5-7 6-7 18-26 24-27 38-40 41-42 42-43 42-44
45-46 47-48 47-49 50-51 50-52 54-55 54-56
ring/chain bonds :
27-28 28-29
ring bonds :
8-9 8-13 9-10 10-11 11-12 12-13 14-15 14-19 15-16 16-17 17-18 18-19 20-
21
20-25 21-22 22-23 23-24 24-25 37-38 38-39
exact/norm bonds :
1-5 1-36 2-6 2-66 3-5 4-6 5-7 6-7 18-26 24-27 27-28 28-29 37-38 38-39
38-40 41-42 42-43 42-44 45-46 47-48 47-49 50-51 50-52 54-55 54-56
normalized bonds :
8-9 8-13 9-10 10-11 11-12 12-13 14-15 14-19 15-16 16-17 17-18 18-19 20-
21
20-25 21-22 22-23 23-24 24-25

```

G1: [\*1], [\*2], [\*3]

G2: [\*4], [\*5], [\*6], [\*7], [\*8]

G3: [\*9], [\*10]

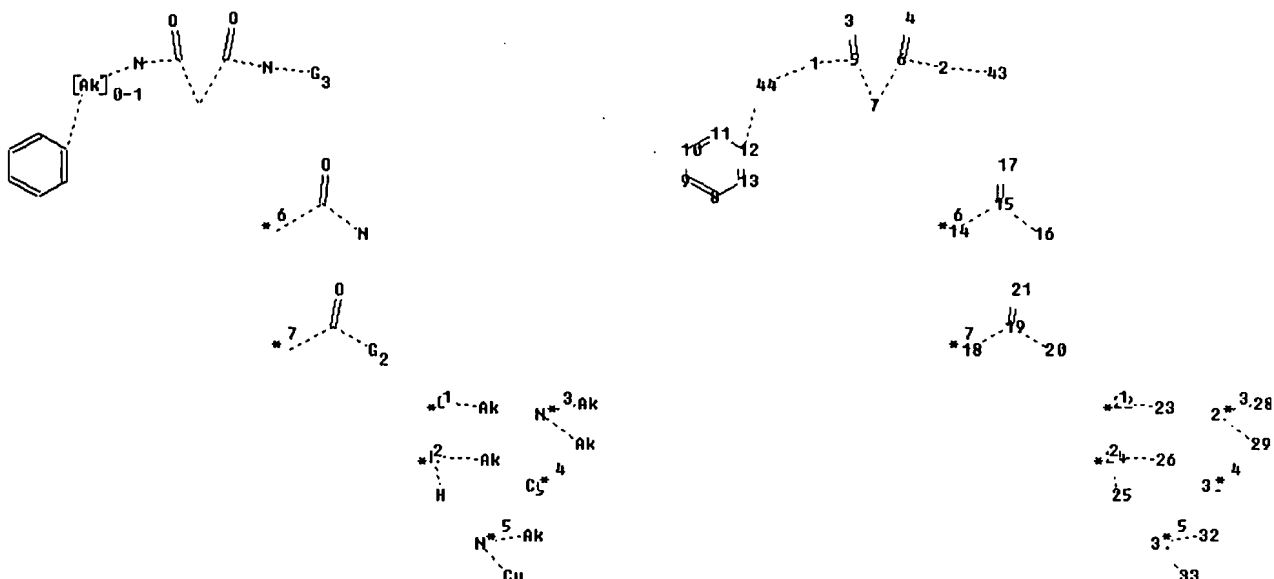
Match level :

```

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:Atom 9:Atom
10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom
22:Atom 23:Atom 24:Atom 25:Atom 26:CLASS 27:CLASS 28:CLASS 29:CLASS
36:CLASS 37:Atom
38:Atom 39:Atom 40:CLASS 41:CLASS 42:CLASS 43:CLASS 44:CLASS 45:CLASS
46:CLASS 47:CLASS
48:CLASS 49:CLASS 50:CLASS 51:CLASS 52:CLASS 53:Atom 54:CLASS 55:CLASS
56:Atom 66:CLASS

```

Uploading L9.str



chain nodes :

1 2 3 4 5 6 7 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31  
32 33 43 44

ring nodes :

8 9 10 11 12 13 14 15 16

chain bonds :

1-5 1-44 2-6 2-43 3-5 4-6 5-7 6-7 12-44 15-17 18-19 19-20 19-21 22-23  
24-25 24-26 27-28 27-29 31-32 31-33

ring bonds :

8-9 8-13 9-10 10-11 11-12 12-13 14-15 15-16

exact/norm bonds :

1-5 1-44 2-6 2-43 3-5 4-6 5-7 6-7 12-44 14-15 15-16 15-17 18-19 19-20  
19-21 22-23 24-25 24-26 27-28 27-29 31-32 31-33

normalized bonds :

8-9 8-13 9-10 10-11 11-12 12-13

isolated ring systems :

containing 8 :

G2: [\*1], [\*2], [\*3], [\*4], [\*5]

G3: [\*6], [\*7]

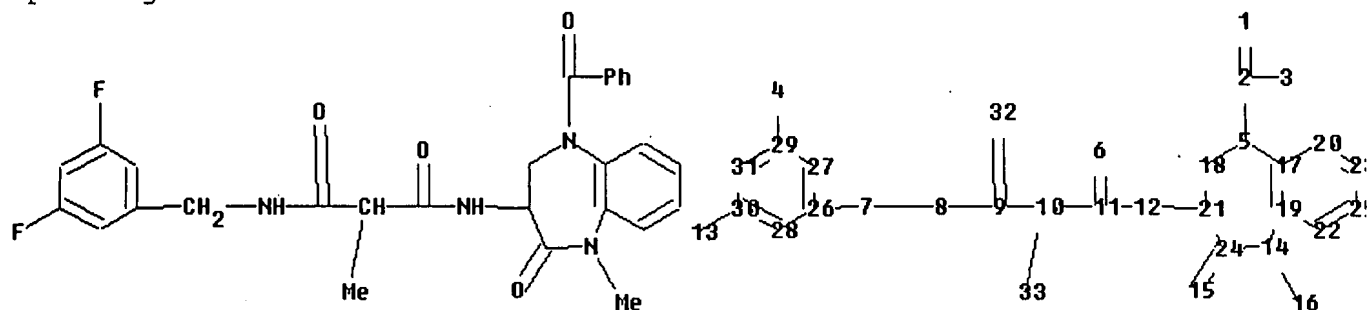
Connectivity :

44:2 E exact RC ring/chain

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:Atom 9:Atom  
10:Atom  
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS 18:CLASS 19:CLASS  
20:CLASS  
21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS  
29:CLASS 30:Atom  
31:CLASS 32:CLASS 33:Atom 43:CLASS 44:CLASS

Uploading L34.str



chain nodes :

1 2 3 4 6 7 8 9 10 11 12 13 15 16 32 33

ring nodes :

5 14 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

chain bonds :

1-2 2-5 2-3 4-29 6-11 7-8 7-26 8-9 9-10 9-32 10-11 10-33 11-12 12-21  
13-30 14-16 15-24

ring bonds :

5-17 5-18 14-19 14-24 17-19 17-20 18-21 19-22 20-23 21-24 22-25 23-25  
26-27 26-28 27-29 28-30 29-31 30-31

exact/norm bonds :

1-2 2-5 5-17 5-18 6-11 8-9 9-32 11-12 12-21 14-19 14-24 15-24 18-21  
21-24

exact bonds :

2-3 4-29 7-8 7-26 9-10 10-11 10-33 13-30 14-16

normalized bonds :

17-19 17-20 19-22 20-23 22-25 23-25 26-27 26-28 27-29 28-30 29-31 30-31

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:CLASS  
10:CLASS

11:CLASS 12:CLASS 13:CLASS 14:Atom 15:CLASS 16:CLASS 17:Atom 18:Atom

19:Atom 20:Atom

21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom

30:Atom 31:Atom

32:CLASS 33:CLASS

=> d ide L33

L33 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

RN 741672-69-5 REGISTRY

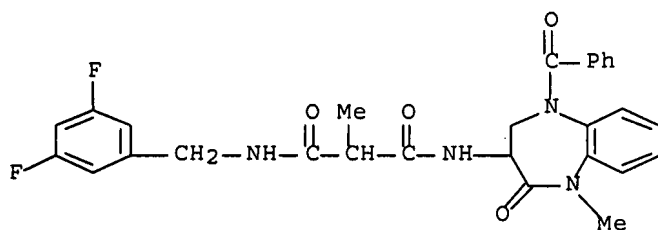
ED Entered STN: 09 Sep 2004

CN Propanediamide, N-(5-benzoyl-2,3,4,5-tetrahydro-1-methyl-2-oxo-1H-1,5-benzodiazepin-3-yl)-N'-[(3,5-difluorophenyl)methyl]-2-methyl- (9CI)  
(CA INDEX NAME)

MF C28 H26 F2 N4 O4

SR CA

LC STN Files: CA, CAPLUS, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> => file marpat

FILE 'MARPAT' ENTERED AT 13:57:06 ON 02 MAY 2007

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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FILE CONTENT: 1961-PRESENT VOL 146 ISS 18 (20070427/ED)

SOME MARPAT RECORDS ARE DERIVED FROM INPI DATA FOR 1961-1987

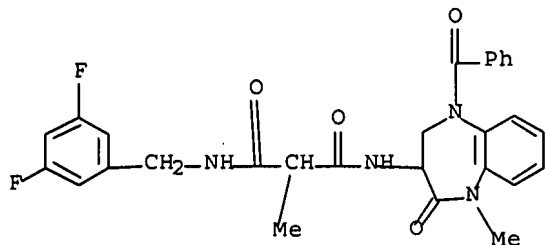
MOST RECENT CITATIONS FOR PATENTS FROM MAJOR ISSUING AGENCIES  
(COVERAGE TO THESE DATES IS NOT COMPLETE):

|    |              |    |     |      |
|----|--------------|----|-----|------|
| US | 2007060644   | 15 | MAR | 2007 |
| DE | 102006023116 | 15 | MAR | 2007 |
| EP | 1762248      | 14 | MAR | 2007 |
| JP | 2007059877   | 08 | MAR | 2007 |
| WO | 2007030662   | 15 | MAR | 2007 |
| GB | 2429975      | 14 | MAR | 2007 |
| FR | 2890657      | 16 | MAR | 2007 |
| RU | 2295953      | 27 | MAR | 2007 |
| CA | 2556850      | 24 | FEB | 2007 |

Expanded G-group definition display now available.

=> d stat que L38

L34 STR



Structure attributes must be viewed using STN Express query preparation.

L37 2 SEA FILE=MARPAT SSS FUL L34  
L38 1 SEA FILE=MARPAT ABB=ON PLU=ON L37/COM

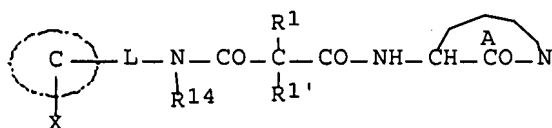
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L38 ANSWER 1 OF 1 MARPAT COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 141:206827 MARPAT Full-text  
TITLE: Preparation of malonamides and related compounds as  
 $\gamma$ -secretase inhibitors for the treatment of  
Alzheimer's disease.  
INVENTOR(S): Galley, Guido; Goergler, Annick; Jacobsen, Helmut;  
Kitas, Eric Argirios; Peters, Jens-Uwe  
PATENT ASSIGNEE(S): F. Hoffmann-La Roche A.-G., Switz.  
SOURCE: PCT Int. Appl., 85 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

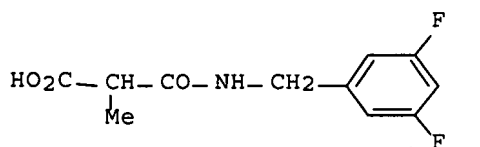
| PATENT NO.             | KIND   | DATE     | APPLICATION NO.  | DATE     |
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| WO 2004069826          | A1   | 20040819 | WO 2004-EP674    | 20040127 |
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| AU 2004210036          | A1   | 20040819 | AU 2004-210036   | 20040127 |
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| EP 1592684             | A1   | 20051109 | EP 2004-705404   | 20040127 |
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| BR 2004007262          | A  | 20060131 | BR 2004-7262     | 20040127 |
| CN 1745076             | A  | 20060308 | CN 2004-80003305 | 20040127 |
| JP 2006516556          | T  | 20060706 | JP 2006-500017   | 20040127 |
| US 2004220222          | A1   | 20041104 | US 2004-767784   | 20040129 |
| NO 2005003627          | A  | 20050810 | NO 2005-3627     | 20050726 |
| PRIORITY APPLN. INFO.: |  |          | EP 2003-2190     | 20030204 |
|                        |  |          | WO 2004-EP674    | 20040127 |

GI

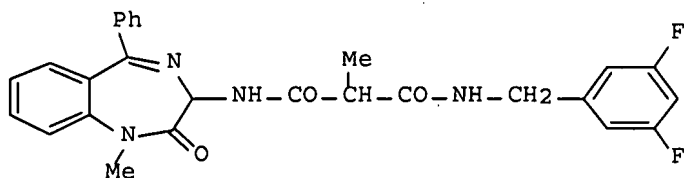




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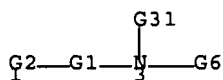
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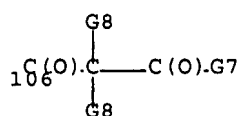
III

AB Title compds. I [L = bond, (CH<sub>2</sub>)<sub>1-2</sub>, CH(CH<sub>3</sub>), etc.; C = cyclic ring, e.g., Ph, pyridinyl, furanyl, etc.; X = (R<sub>2</sub>)<sub>1,2,3</sub>; (R<sub>2</sub>)<sub>1,2,3</sub> = H, OH, halo, etc.; R<sub>1</sub>, R<sub>1'</sub> = H, alkyl, halo, etc.; R<sub>14</sub> = H, alkyl, (CH<sub>2</sub>)<sub>2</sub>OH, etc.; A = substituted 5,7-dihydro-6H-dibenz[b,d]azepin-6-ones, 1,3-dihydro-5-phenyl-1,4-benzodiazepin-2-ones, 3,4-dihydro-2-quinolinones, etc.] and their pharmaceutically acceptable salts and formulations were prepared. For example, coupling of 3-amino-1,3-dihydro-1-methyl-5-phenyl-2H-1,4-benzodiazepin-2-one and malonic acid II, e.g., prepared from di-Et Me malonate in 3-steps, afforded malonamide III in 67% yield. In  $\gamma$ -secretase inhibition assays, 37-examples of compds. I exhibited IC<sub>50</sub> values ranging from 0.003-0.11  $\mu$ M, the IC<sub>50</sub> value of malonamide III was 0.83  $\mu$ M. Compds. I are claimed useful for the treatment of Alzheimer's disease.

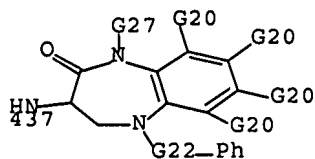
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G<sub>1</sub> = CH<sub>2</sub>  
G<sub>2</sub> = Ph (opt. substd. by (1-3) G<sub>3</sub>)  
G<sub>3</sub> = F  
G<sub>6</sub> = 106



G7 = 437



G8 = alkyl <containing 1-6 C>

G22 = C(O)

G27 = Me

Patent location: claim 1

Note: and pharmaceutically suitable acid addition salts

Note: also incorporates claim 16

Note: substitution is restricted

=> => file registry

FILE 'REGISTRY' ENTERED AT 14:00:33 ON 02 MAY 2007

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DICTIONARY FILE UPDATES: 1 MAY 2007 HIGHEST RN 934050-43-8

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<http://www.cas.org/support/stngen/stndoc/properties.html>

=> file caplus

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FILE LAST UPDATED: 1 May 2007 (20070501/ED)

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Structure attributes must be viewed using STN Express query preparation.

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\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

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L49 2 SEA FILE=CAPLUS ABB=ON PLU=ON (L39 OR L40 OR L41 OR L42 OR  
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=> s (L16 or L48-L49)  
L50 9 (L16 OR (L48 OR L49))

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L50 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2007:175657 CAPLUS Full-text  
DOCUMENT NUMBER: 146:251750  
TITLE: Preparation of fluoro substituted 2-oxo-azepan  
derivatives as  $\gamma$ -secretase inhibitors  
INVENTOR(S): Flohr, Alexander; Galley, Guido;  
Jakob-Roetne, Roland; Kitas, Eric Argirios;  
Wostl, Wolfgang  
PATENT ASSIGNEE(S): Switz.  
SOURCE: U.S. Pat. Appl. Publ., 18pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| US 2007037789   | A1   | 20070215 | US 2006-500662  | 20060808 |
| WO 2007020190   | A1   | 20070222 | WO 2006-EP64935 | 20060802 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,<br>CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,<br>GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,<br>KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN,<br>MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU,<br>SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG,<br>US, UZ, VC, VN, ZA, ZM, ZW |      |          |                 |          |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,   |      |          |                 |          |

IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,  
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
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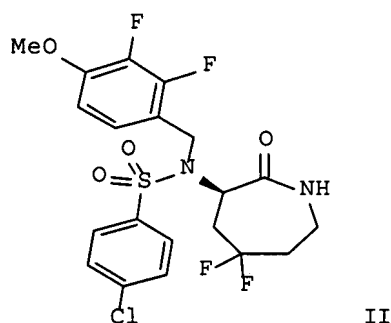
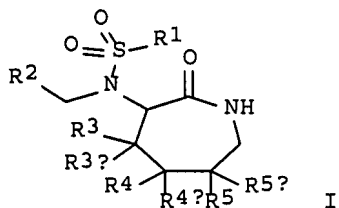
EP 2005-107455

A 20050812

OTHER SOURCE(S):

MARPAT 146:251750

GI



AB The title fluoro substituted 2-oxo-azepan derivs. I [wherein R1 = halogenated alkyl or (un)substituted (hetero)aryl; R2 = (un)substituted heterocycloalkyl or (hetero)aryl; R3/R3a, R4/R4a, and R5/R5a = independently H or F; wherein at least one of R4/R4a and R5/R5a = F], or pharmaceutically acceptable acid salts, optical enantiomers, racemates, or diastereomeric mixts. thereof were prepared as  $\gamma$ -secretase inhibitors for the treatment of Alzheimer's disease or common cancers including, but not limited to, cervical carcinomas, breast carcinomas, and malignancies of the hematopoietic system (no data). For example, 4-chloro-N-((R)-5,5-difluoro-2-oxo-azepan-3-yl)benzenesulfonamide (preparation given) was alkylated using 1-bromomethyl-2,3-difluoro-4-methoxybenzene to give II. II showed inhibitory activity with IC<sub>50</sub> of 2 nM against  $\gamma$ -secretase. Formulations as tablets and capsules were described.

INCL 514212030; 540527000

CC 27-21 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 1, 63

L50 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:53048 CAPLUS Full-text

DOCUMENT NUMBER: 144:128869

TITLE: Preparation of N-(2-oxoazepan-3-yl)sulfonamides as  $\gamma$ -secretase inhibitors for treating Alzheimer's disease and cancers

INVENTOR(S): Galley, Guido; Kitas, Eric, Argirios  
; Jakob-Roetne, Roland

PATENT ASSIGNEE(S): F. Hoffmann-La Roche AG, Switz.

SOURCE: PCT Int. Appl., 107 pp.

CODEN: PIXXD2

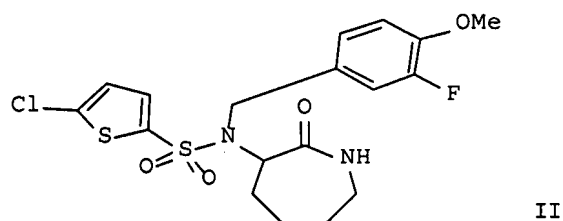
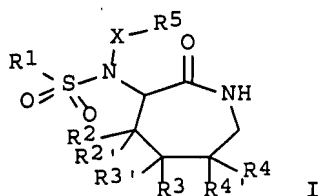
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE              | APPLICATION NO. | DATE       |
|---|------|-------------------|-----------------|------------|
| WO 2006005486   | A1   | 20060119          | WO 2005-EP7268  | 20050706   |
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| AU 2005261932   | A1   | 20060119          | AU 2005-261932  | 20050706   |
| CA 2573372  | A1   | 20060119          | CA 2005-2573372 | 20050706   |
| EP 1768960  | A1   | 20070404          | EP 2005-754795  | 20050706   |
| R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR   |      |                   |                 |            |
| US 2006014945   | A1   | 20060119          | US 2005-179703  | 20050712   |
| PRIORITY APPLN. INFO.:  |      |                   | EP 2004-103339  | A 20040713 |
|   |      |                   | WO 2005-EP7268  | W 20050706 |
| OTHER SOURCE(S):  |      | MARPAT 144:128869 |                 |            |
| GI  |      |                   |                 |            |



AB Title compds. I [R1 = (un)substituted hetero/aryl; R2-R4, R2'-R4' = H, lower alkyl, Ph or lower alkyl substituted by halogen; R5 = cycloalkyl, (un)substituted hetero/aryl; X = CHR; R = H, lower alkyl; and their pharmaceutically suitable acid addition salts, optical pure enantiomers, racemates or diastereomeric] were prepared as  $\gamma$ -secretase inhibitors. Thus, reductive amination of 3-fluoro-p-anisaldehyde with 3-aminoazepan-2-one and reaction with 5-chlorothiophene-2-sulfonyl chloride gave sulfonamide II. Preferred I inhibited  $\gamma$ -secretase with  $IC_{50} < 0.3 \mu M$ . I are useful in the treatment of Alzheimer's disease or common cancers.

IC ICM C07D223-08

ICS A61K031-55; A61P035-00; A61P025-28  
 CC 27-21 (Heterocyclic Compounds (One Hetero Atom))  
 Section cross-reference(s): 1, 63  
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L50 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2005:303395 CAPLUS Full-text  
 DOCUMENT NUMBER: 142:373708  
 TITLE: Preparation of carbamic acid alkyl ester derivatives  
 as  
 INVENTOR(S): Flohr, Alexander; Galley, Guido;  
 Jakob-Roetne, Roland; Kitas, Eric Argirios;  
 Peters, Jens-Uwe; Wostl, Wolfgang  
 PATENT ASSIGNEE(S): Hoffmann-La Roche Inc., USA  
 SOURCE: U.S. Pat. Appl. Publ., 38 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO.                        | DATE       |
|--|------|----------|--|------------|
| US 2005075327  | A1   | 20050407 | US 2004-951229                         | 20040927   |
| US 7166587   | B2   | 20070123 |  |            |
| AU 2004283803  | A1   | 20050506 | AU 2004-283803                         | 20040927   |
| CA 2541470   | A1   | 20050506 | CA 2004-2541470                        | 20040927   |
| WO 2005040126  | A1   | 20050506 | WO 2004-EP10821                        | 20040927   |
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| BR 2004015070  | A    | 20061212 | BR 2004-15070                          | 20040927   |
| CN 1894217   | A    | 20070110 | CN 2004-80033374                       | 20040927   |
| JP 2007507447  | T    | 20070329 | JP 2006-530028                         | 20040927   |
| NO 2006001469  | A    | 20060626 | NO 2006-1469                           | 20060331   |
| PRIORITY APPLN. INFO.:   |      |          | EP 2003-22650                          | A 20031006 |
|  |      |          | WO 2004-EP10821                        | W 20040927 |
| OTHER SOURCE(S):   |      |          | CASREACT 142:373708; MARPAT 142:373708 |            |
| GI   |      |          |  |            |

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The compds. of general formula (I) and (II) [R1 = each (un)substituted -  
 (CHR')q-aryl or -(CHR')q-heteroaryl, lower alkyl, lower alkenyl, -(CH2)nSiMe3,  
 -(CH2)n-O-lower alkyl, -(CH2)n-S-lower alkyl, -(CH2)q-cycloalkyl, or -(CH2)n-

[CH(OH)]<sub>m</sub>-(CF<sub>2</sub>)<sub>p</sub>-CHF(3-q), -(CH<sub>2</sub>)<sub>n</sub>-CR<sub>2</sub>-CF<sub>3</sub> (wherein the two R radicals form together with the carbon atom a cycloalkyl ring); R' = H, lower alkyl; n = 1-3; m = 0, 1; p = 0-6; q = 0-3; R<sub>2</sub> = H, lower alkyl; R<sub>3</sub> = H, lower alkyl, -CH<sub>2</sub>CF<sub>2</sub>CF<sub>3</sub>, CH<sub>2</sub>CF<sub>3</sub>, (CH<sub>2</sub>)<sub>2</sub>CF<sub>3</sub>, CF<sub>3</sub>, CHF<sub>2</sub>, CH<sub>2</sub>F, (un)substituted aryl, -(CH<sub>2</sub>)<sub>n</sub>NR<sub>5</sub>R<sub>6</sub> (wherein R<sub>5</sub>, R<sub>6</sub> = H, lower alkyl); R<sub>4</sub> = Q, Q<sub>1</sub> (wherein R<sub>7</sub> = H, lower alkyl, -(CH<sub>2</sub>)<sub>n</sub>CF<sub>3</sub>, -(CH<sub>2</sub>)<sub>n</sub>-cycloalkyl); R<sub>8</sub> = H, lower alkyl, -COPh, -C(O)-lower alkyl, -C(O)O-(CH<sub>2</sub>)<sub>n</sub>-cycloalkyl, -C(O)O-(CH<sub>2</sub>)<sub>n</sub>-lower alkyl, -C(O)NH-(CH<sub>2</sub>)<sub>n</sub>-lower alkyl, -C(O)NH-(CH<sub>2</sub>)<sub>n</sub>-cycloalkyl; R<sub>9</sub> = H, lower alkyl, -(CH<sub>2</sub>)<sub>n</sub>-cycloalkyl, -(CH<sub>2</sub>)<sub>n</sub>-CF<sub>3</sub>] or pharmaceutically acceptable salts, optically pure enantiomers, racemates or diastereomeric mixts. thereof are prepared These compds. inhibit amyloidogenic Abeta peptides, i.e. β-amyloid (Aβ) peptides, and are useful for the treatment of Alzheimer's disease. β-amyloid peptides. Thus, 0.12 g (0.25 mmol) carbonic acid 4-nitrophenyl ester (S)-1-((S)-6-oxo-6,7-dihydro-5H-dibenzo[b,d]azepin-7-ylcarbamoyl)ethyl ester and 543 μl 2,2,3,3,3-pentafluoropropylamine were stirred at room temperature over night to give, after silica gel chromatog., 0.075 g (63%) (2,2,3,3,3-pentafluoropropyl)carbamic acid (1S)-1-(((7S)-6-oxo-6,7-dihydro-5H-dibenzo[b,d]azepin-7-yl)carbamoyl)ethyl ester (III). III showed IC<sub>50</sub> of 0.001 μM against γ-secretase.

IC ICM A61K031-5513

ICS A61K031-55; C07D243-24

INCL 514212040; X51-422.1; X54-050.8; X54-052.2

CC 27-21 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 1, 28

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L50 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:220131 CAPLUS Full-text

DOCUMENT NUMBER: 142:298014

TITLE: Preparation of dibenzoazepinylmalonamides, dibenzoxepinylmalonamides, benzodiazepinylmalonamides, and related compounds as γ-secretase inhibitors for treatment of Alzheimer's disease.

INVENTOR(S): Flohr, Alexander; Galley, Guido; Jakob-Roetne, Roland; Kitas, Eric Argirios; Peters, Jens-Uwe; Wostl, Wolfgang

PATENT ASSIGNEE(S): Hoffmann-La Roche Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 59 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| US 2005054633 | A1   | 20050310 | US 2004-933177  | 20040902 |
| US 7160875    | B2   | 20070109 |                 |          |
| AU 2004270361 | A1   | 20050317 | AU 2004-270361  | 20040831 |
| CA 2537440    | A1   | 20050317 | CA 2004-2537440 | 20040831 |
| WO 2005023772 | A1   | 20050317 | WO 2004-EP9700  | 20040831 |

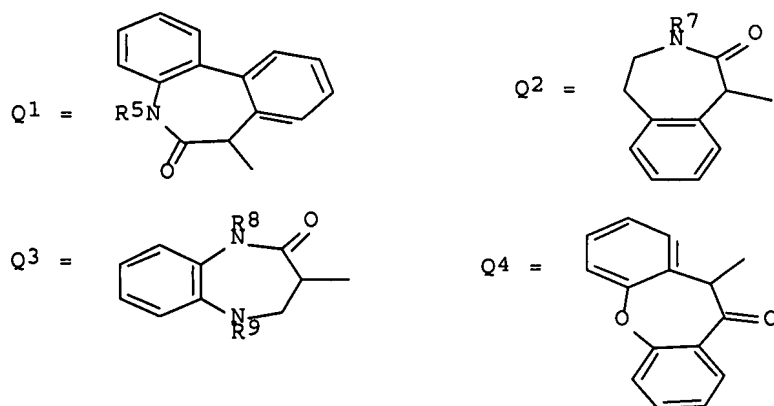
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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,  
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,  
 SN, TD, TG

|  |    |          |                  |            |
|--|----|----------|------------------|------------|
| BR 2004013533  | A  | 20061010 | BR 2004-13533    | 20040831   |
| EP 1711470   | A1 | 20061018 | EP 2004-764665   | 20040831   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,<br>IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK |    |          |                  |            |
| CN 1875005   | A  | 20061206 | CN 2004-80032641 | 20040831   |
| JP 2007505063  | T  | 20070308 | JP 2006-525701   | 20040831   |
| NO 2006001047  | A  | 20060404 | NO 2006-1047     | 20060303   |
| PRIORITY APPLN. INFO.:   |    |          | EP 2003-19683    | A 20030909 |
|  |    |          | WO 2004-EP9700   | W 20040831 |

OTHER SOURCE(S): MARPAT 142:298014  
 GI



AB Malonamides R1NHCOCR3R4CONHR2 [R1= Q1-Q4; R2 = alkyl, alkynyl, alkylthio, alkoxy(alkyl), halo(alkyl), etc.; R3, R4 = H, alkyl, alkoxy, Ph, halo; R5 = H, alkyl, trifluoromethyl(alkyl), cycloalkyl(alkyl); R6 = H, halo; R7 = H, alkyl; R8 = H, alkyl, alkynyl, trifluoromethyl(alkyl), cycloalkyl(alkyl), (halo-substituted) phenyl(alkyl); R9 = H, alkyl, CHO, alkylcarbonyl, F3CCO, (substituted) PhCO, etc.], were prepared. Thus, 2-methyl-N-(5-methyl-6-oxo-6,7-dihydro-5H-dibenzo[b,d]azepin-7-yl)malonamic acid (preparation given), cyclopropylmethylamine, and 2-(2-pyridon-1-yl)-1,1,3,3-tetramethyluronium tetrafluoroborate (TPTU) were shaken together overnight in DMF to give N-cyclopropylmethyl-2-methyl-N'-(5-methyl-6-oxo-6,7-dihydro-5H-dibenzo[b,d]azepin-7-yl)malonamide. The latter inhibited  $\gamma$ -secretase with IC50 = 0.09  $\mu$ M.

IC ICM A61K031-55

ICS A61K031-5513; A61K031-335

INCL 514212040; X51-421.207; X51-422.1; X51-445.0; X54-050.9; X54-052.2; X54-052.3

CC 27-21 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 1, 28, 63

|    |              |              |              |              |              |
|----|--------------|--------------|--------------|--------------|--------------|
| IT | 847927-01-9P | 847927-02-0P | 847927-03-1P | 847927-04-2P | 847927-05-3P |
|    | 847927-06-4P | 847927-07-5P | 847927-08-6P | 847927-09-7P | 847927-10-0P |
|    | 847927-11-1P | 847927-12-2P | 847927-13-3P | 847927-14-4P |              |

|              |              |              |              |              |
|--------------|--------------|--------------|--------------|--------------|
| 847927-15-5P | 847927-16-6P | 847927-17-7P | 847927-18-8P | 847927-19-9P |
| 847927-20-2P | 847927-21-3P | 847927-22-4P | 847927-23-5P | 847927-24-6P |
| 847927-25-7P | 847927-26-8P | 847927-27-9P | 847927-28-0P | 847927-29-1P |
| 847927-30-4P | 847927-31-5P | 847927-32-6P | 847927-33-7P | 847927-34-8P |
| 847927-35-9P | 847927-36-0P | 847927-37-1P | 847927-47-3P | 847927-50-8P |
| 847927-51-9P | 847927-52-0P | 847927-53-1P | 847927-54-2P | 847927-55-3P |
| 847927-56-4P | 847927-57-5P | 847927-58-6P | 847927-59-7P | 847927-60-0P |
| 847927-61-1P | 847927-62-2P | 847927-63-3P | 847927-64-4P | 847927-65-5P |
| 847927-66-6P | 847927-67-7P | 847927-68-8P | 847927-69-9P | 847927-70-2P |
| 847927-71-3P | 847927-72-4P | 847927-73-5P | 847927-74-6P |              |

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of dibenzoazepinylmalonamides, dibenzooxepinylmalonamides, benzodiazepinylmalonamides, and related compds. as  $\gamma$ -secretase inhibitors for treatment of Alzheimer's disease)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L50 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1019771 CAPLUS Full-text

DOCUMENT NUMBER: 142:6564

TITLE: Preparation of 1,4-benzoxazepin-3-ones as inhibitors of  $\gamma$ -secretase for the treatment of Alzheimer's disease

INVENTOR(S): Galley, Guido; Goodnow, Robert Alan; Peters, Jens-Uwe

PATENT ASSIGNEE(S): Hoffmann-La Roche Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 27 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE     |
|---|------|----------|------------------|----------|
| -----   | ---- | -----    | -----            | -----    |
| US 2004235819   | A1   | 20041125 | US 2004-838054   | 20040503 |
| US 7060698  | B2   | 20060613 |                  |          |
| AU 2004238037   | A1   | 20041125 | AU 2004-238037   | 20040514 |
| CA 2524640  | A1   | 20041125 | CA 2004-2524640  | 20040514 |
| WO 2004100958   | A1   | 20041125 | WO 2004-EP5177   | 20040514 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |      |          |                  |          |
| RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                  |          |
| EP 1631296  | A1   | 20060308 | EP 2004-732944   | 20040514 |
| EP 1631296  | B1   | 20070425 |                  |          |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK   |      |          |                  |          |
| CN 1794997  | A    | 20060628 | CN 2004-80014015 | 20040514 |
| BR 2004010647   | A    | 20060704 | BR 2004-10647    | 20040514 |
| JP 2007501261   | T    | 20070125 | JP 2006-529815   | 20040514 |

PRIORITY APPLN. INFO.:

EP 2003-11040

A 20030519

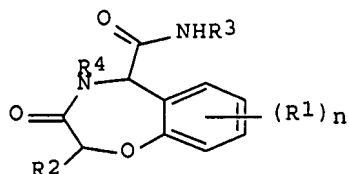
WO 2004-EP5177

W 20040514

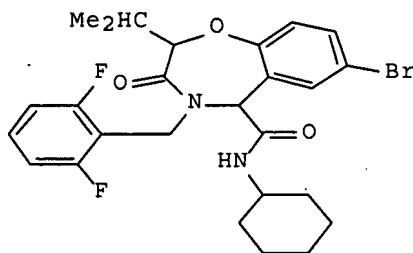
OTHER SOURCE(S):

MARPAT 142:6564

GI



I



II

AB 1,4-Benzooxazepin-3-ones I [ $m = 0-2$ ;  $n = 1, 2$ ;  $p = 1, 2$ ;  $R_1 = \text{H, halogen, alkoxy, amino, alkylamino, dialkylamino}$ ;  $R_2 = \text{H, alkyl, cycloalkyl}-(\text{CH}_2)_m$ ,  $\text{Ph}(\text{CH}_2)_m$ ,  $\text{alkoxy}-(\text{CH}_2)_m$ ;  $R_3 = \text{alkyl, alkoxycarbonyl}-(\text{CH}_2)_m$ ,  $\text{Ph}(\text{CH}_2)_m$ ,  $\text{cycloalkyl}$ ;  $R_4 = (\text{un})\text{substituted Ph}(\text{CH}_2)_p$ ,  $\text{cycloalkyl}$ ,  $\text{tetrahydronaphthalen-1-yl}$ ,  $9\text{-fluorenyl}$ ,  $\text{alkyl}$ ] such as II are prepared as  $\gamma$ -secretase inhibitors for the treatment of Alzheimer's disease. Treatment of 5-bromosalicylaldehyde with base followed by addition of Et 2-bromo-3-methylbutyrate yields Et 2-(4-bromo-2-formylphenoxy)-3-methylbutanoate, which is hydrolyzed to yield 2-(4-bromo-2-formylphenoxy)-3-methylbutanoic acid (III); stirring III with 2,6-difluorobenzylamine and cyclohexyl isocyanide in DMSO yields II.  $\text{IC}_{50}$  values (without units) are given for the inhibition of  $\gamma$ -secretase by some of the title compds. E.g., II inhibits  $\gamma$ -secretase with an  $\text{IC}_{50}$  value of 0.28 (no units given). A process for the preparation of the title compds. using a cyclocondensation of (formylaryloxy)alkanoic acids, amines, and isonitriles is claimed.

IC ICM A61K031-553

ICS C07D413-02

INCL 514211050; X54-049.0

CC 28-22 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1, 63

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L50 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:675740 CAPLUS Full-text

DOCUMENT NUMBER: 141:206827

TITLE: Preparation of malonamides and related compounds as  $\gamma$ -secretase inhibitors for the treatment of Alzheimer's disease.

INVENTOR(S): Galley, Guido; Goergler, Annick; Jacobsen, Helmut; Kitas, Eric Argirios; Peters, Jens-Uwe

PATENT ASSIGNEE(S): F. Hoffmann-La Roche A.-G., Switz.

SOURCE: PCT Int. Appl., 85 pp.

CODEN: PIXXD2

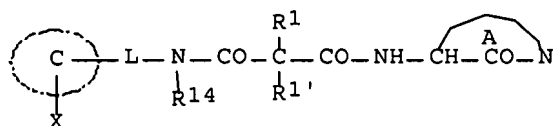
DOCUMENT TYPE: Patent

LANGUAGE: English

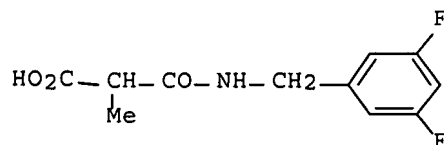
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

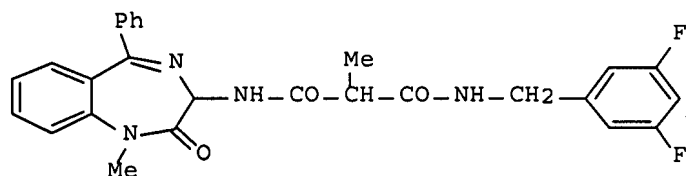
| PATENT NO.  | KIND | DATE              | APPLICATION NO.  | DATE       |
|---|------|-------------------|------------------|------------|
| WO 2004069826   | A1   | 20040819          | WO 2004-EP674    | 20040127   |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI |      |                   |                  |            |
| RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG                                |      |                   |                  |            |
| AU 2004210036   | A1   | 20040819          | AU 2004-210036   | 20040127   |
| CA 2514267  | A1   | 20040819          | CA 2004-2514267  | 20040127   |
| EP 1592684  | A1   | 20051109          | EP 2004-705404   | 20040127   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK   |      |                   |                  |            |
| BR 2004007262   | A    | 20060131          | BR 2004-7262     | 20040127   |
| CN 1745076  | A    | 20060308          | CN 2004-80003305 | 20040127   |
| JP 2006516556   | T    | 20060706          | JP 2006-500017   | 20040127   |
| US 2004220222   | A1   | 20041104          | US 2004-767784   | 20040129   |
| NO 2005003627   | A    | 20050810          | NO 2005-3627     | 20050726   |
| PRIORITY APPLN. INFO.:  |      |                   | EP 2003-2190     | A 20030204 |
|   |      |                   | WO 2004-EP674    | W 20040127 |
| OTHER SOURCE(S):  |      | MARPAT 141:206827 |                  |            |
| GI  |      |                   |                  |            |



I



II



III

AB Title compds. I [L = bond, (CH<sub>2</sub>)<sub>1-2</sub>, CH(CH<sub>3</sub>), etc.; C = cyclic ring, e.g., Ph, pyridinyl, furanyl, etc.; X = (R<sub>2</sub>)<sub>1,2,3</sub>; (R<sub>2</sub>)<sub>1,2,3</sub> = H, OH, halo, etc.; R<sub>1</sub>, R<sub>1</sub>' = H, alkyl, halo, etc.; R<sub>14</sub> = H, alkyl, (CH<sub>2</sub>)<sub>2</sub>OH, etc.; A = substituted 5,7-dihydro-6H-dibenz[b,d]azepin-6-ones, 1,3-dihydro-5-phenyl- 1,4-benzodiazepin-2-ones, 3,4-dihydro-2-quinolinones, etc.] and their pharmaceutically acceptable salts and formulations were prepared For example, coupling of 3-amino-1,3-dihydro-1-methyl-5-phenyl-2H-1,4- benzodiazepin-2-one and malonamic acid II, e.g., prepared from di-Et Me malonate in 3-steps, afforded malonamide III in 67% yield. In  $\gamma$ -secretase inhibition assays, 37-

examples of compds. I exhibited IC50 values ranging from 0.003-0.11  $\mu$ M, the IC50 value of malonamide III was 0.83  $\mu$ M. Compds. I are claimed useful for the treatment of Alzheimer's disease.

IC ICM C07D401-06  
ICS C07D217-06; C07D403-06; C07D471-08; C07D401-04; C07D471-04;  
C07D471-06; C07D209-44; C07D209-18; C07D223-18; C07D401-12;  
C07D405-12; C07D409-12; C07C237-12; C07C237-14

CC 23-18 (Aliphatic Compounds)  
Section cross-reference(s): 1, 63

IT 741672-55-9P 741672-56-0P 741672-57-1P  
741672-58-2P 741672-59-3P 741672-60-6P  
741672-61-7P 741672-62-8P 741672-63-9P  
741672-64-0P 741672-65-1P 741672-66-2P  
741672-68-4P 741672-69-5P 741672-70-8P  
741672-71-9P 741672-72-0P 741672-73-1P  
741672-74-2P 741672-75-3P 741672-76-4P  
741672-77-5P 741672-78-6P 741672-79-7P  
741672-80-0P 741672-81-1P 741672-82-2P  
741672-83-3P 741672-84-4P 741672-85-5P  
741672-86-6P 741672-87-7P 741672-88-8P  
741672-89-9P 741672-90-2P 741672-91-3P  
741672-92-4P 741672-93-5P 741672-94-6P  
741672-95-7P 741672-96-8P 741672-97-9P  
741672-98-0P 741672-99-1P 741673-00-7P  
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741673-85-8P 741673-86-9P 741673-87-0P  
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741673-91-6P 741673-92-7P 741673-93-8P  
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 741674-21-5P 741674-22-6P 741674-23-7P 741674-24-8P  
 741674-25-9P 741674-26-0P 741674-27-1P 741674-28-2P  
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 741674-32-8P 741674-33-9P 741674-34-0P 741674-35-1P  
 741674-36-2P 741674-37-3P 741674-38-4P 741674-39-5P  
 741674-40-8P 741674-99-7P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)

(preparation of malonamides and related compds. as  $\gamma$ -secretase  
 inhibitors for the treatment of Alzheimer's disease.)

IT 2985-33-3P, 2-Methylmalonic acid monoethyl ester 119860-05-8P  
 741674-41-9P 741674-42-0P 741674-44-2P 741674-45-3P 741674-46-4P  
 741674-47-5P 741674-48-6P 741674-49-7P 741674-50-0P  
 741674-51-1P 741674-54-4P 741674-55-5P 741674-56-6P 741674-57-7P  
 741674-58-8P 741674-59-9P, N-(3,5-Difluorobenzyl)malonamic acid  
 741674-60-2P 741674-64-6P 741674-65-7P 741674-66-8P 741674-67-9P  
 741674-68-0P 741674-69-1P 741674-70-4P 741674-71-5P 741674-72-6P  
 741674-73-7P 741674-74-8P 741674-75-9P 741674-78-2P 741674-79-3P  
 741674-81-7P 741674-82-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)

(preparation of malonamides and related compds. as  $\gamma$ -secretase  
 inhibitors for the treatment of Alzheimer's disease.)

L50 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:888744 CAPLUS Full-text

DOCUMENT NUMBER: 137:384847

TITLE: 1-Oxa-3,9-diazaspiro[5,5]undecan-2-ones as antagonists  
 of the neurokinin receptor

INVENTOR(S): Cai, Hai-Ying; Dillon, Michael Patrick; Galley,  
 Guido; Goergler, Annick; Kolczewski,  
 Sabine; Muszynski-Barsy, Dawn Marie

PATENT ASSIGNEE(S): F. Hoffmann-La Roche A.-G., Switz.

SOURCE: PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

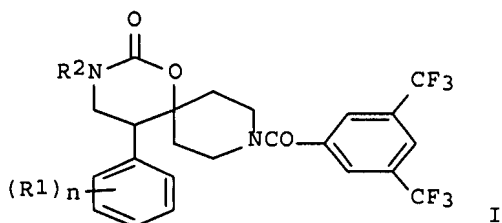
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.    | KIND   | DATE     | APPLICATION NO. | DATE     |
|---------------|--|----------|-----------------|----------|
| WO 2002092604 | A1   | 20021121 | WO 2002-EP4935  | 20020506 |
| W:            | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW |          |                 |          |
| RW:           | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |                 |          |
| CA 2447329    | A1   | 20021121 | CA 2002-2447329 | 20020506 |
| AU 2002342238 | A1   | 20021125 | AU 2002-342238  | 20020506 |
| EP 1390372    | A1   | 20040225 | EP 2002-742943  | 20020506 |

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

|                        |                   |          |                |            |
|------------------------|-------------------|----------|----------------|------------|
| BR 2002009604          | A                 | 20040323 | BR 2002-9604   | 20020506   |
| CN 1507449             | A                 | 20040623 | CN 2002-809473 | 20020506   |
| JP 2004534758          | T                 | 20041118 | JP 2002-589488 | 20020506   |
| US 2003004163          | A1                | 20030102 | US 2002-143431 | 20020510   |
| US 6599900             | B2                | 20030729 |                |            |
| ZA 2003008535          | A                 | 20050131 | ZA 2003-8535   | 20031031   |
| PRIORITY APPLN. INFO.: |                   |          | EP 2001-111644 | A 20010514 |
|                        |                   |          | WO 2002-EP4935 | W 20020506 |
| OTHER SOURCE(S):       | MARPAT 137:384847 |          |                |            |
| GI                     |                   |          |                |            |



AB Title compds. I [R1 = halogen, alkyl, alkoxy; R2 = H, alkyl, haloalkyl, OH, hydroxyalkyl, amino, aminoalkyl, alkoxyalkyl, carbamoylalkyl, heteroaryl, heteroarylalkyl, heterocyclic, heterocyclalkyl; n = 0-2] were prepared for use as NK-1 antagonists. Thus, 3-ClC6H4CH2CN was treated with 1-[3,5-bis(trifluoromethyl)benzoyl]-4-piperidinone and cyclized with carbonyldiimidazole to give I [R1 = 3-Cl, R2 = H] which had a pKi for the NK-1 receptor of 8.29.

IC ICM C07D498-10  
 ICS A61K031-535

CC 28-13 (Heterocyclic Compounds (More Than One Hetero Atom))  
 Section cross-reference(s): 1

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L50 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2001:904170 CAPLUS Full-text

DOCUMENT NUMBER: 136:37519

TITLE: Synthesis and use of triazaspirodecanone derivatives as neurokinin receptor antagonists

INVENTOR(S): Galley, Guido; Godel, Thierry;  
 Goergler, Annick; Hoffmann, Torsten;  
 Kolczewski, Sabine; Roevers, Stephan

PATENT ASSIGNEE(S): F. Hoffmann-La Roche AG, Switz.

SOURCE: PCT Int. Appl., 90 pp.  
 CODEN: PIXXD2

DOCUMENT TYPE: Patent  
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|------|-----------------|------|
|------------|------|------|-----------------|------|

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WO 2001094346      A1      20011213      WO 2001-EP6305      20010601
W:  AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CO, CU,
    CZ, DE, DK, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
    IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
    MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
    SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY,
    KG, KZ, MD, RU, TJ, TM
RW:  GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
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    BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
US 2002006932      A1      20020117      US 2001-861795      20010521
US 6482829          B2      20021119
CA 2411716          A1      20011213      CA 2001-2411716      20010601
EP 1292596          A1      20030319      EP 2001-945242      20010601
R:   AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
    IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
BR 2001011538      A      20030701      BR 2001-11538      20010601
JP 2003535863      T      20031202      JP 2002-501895      20010601
ZA 2002009488      A      20040223      ZA 2002-9488      20021121
PRIORITY APPLN. INFO.:
                                EP 2000-112285      A 20000608
                                WO 2001-EP6305      W 20010601

OTHER SOURCE(S):      MARPAT 136:37519
GI

```

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. I [R1 = H, alkyl, alkenyl, Ph, (CH<sub>2</sub>)<sub>m</sub>-non aromatic heterocyclyl, (CH<sub>2</sub>)<sub>m</sub>-heteroaryl, (CH<sub>2</sub>)<sub>m</sub>-carboxamide, (CH<sub>2</sub>)<sub>m</sub>-C(O)alkyl, etc.; R2 = H, alkyl, halo, alkoxy; R3 = alkyl, alkoxy, halo, CF<sub>3</sub>; X = N-, C:, CH; X1/X2 = H, OH, alkoxy or may be together an oxo group; Y1/Y2 = H, alkyl, (CH<sub>2</sub>)<sub>m</sub>-Ph or may be together an oxo group; Z = bond, CH<sub>2</sub>, C(O); m = 0 - 4; n = 2 - 3; p = 0 - 2] were prepared Over 160 synthetic examples were disclosed. For example, 8-(3,5-bistrifluoromethylbenzoyl)-1-phenyl-1,3,8- triazaspiro[4.5]decan-4-one was reacted with 2-chloro-4,6-dimethoxy-1,3,5- triazine (1,2-dimethoxyethane, NaH, 100°C, 1 h) to give II. II had pK<sub>i</sub> = 8.66 for the NK-1 receptor. I are useful in the treatment of diseases related to NK-1 receptor antagonists.

IC ICM C07D471-10  
ICS A61K031-445; C07D471-10; C07D239-00; C07D221-00

CC 27-16 (Heterocyclic Compounds (One Hetero Atom))  
Section cross-reference(s): 1, 63

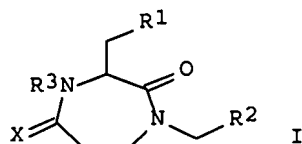
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L50 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2001:868429 CAPLUS Full-text  
DOCUMENT NUMBER: 136:6018  
TITLE: 1,4-Diazepan-2,5-dione derivatives and their use as NK-1 receptor antagonists  
INVENTOR(S): Galley, Guido; Goergler, Annick;  
Godel, Thierry; Heck, Reinhard  
PATENT ASSIGNEE(S): F. Hoffmann-La Roche A.-G., Switz.  
SOURCE: PCT Int. Appl., 38 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1



## PATENT INFORMATION:

| PATENT NO.  | KIND | DATE            | APPLICATION NO. | DATE       |
|---|------|-----------------|-----------------|------------|
| WO 2001090083   | A1   | 20011129        | WO 2001-EP5723  | 20010518   |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CO, CU, CZ, DE, DK, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW |      |                 |                 |            |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  |      |                 |                 |            |
| US 2002010174   | A1   | 20020124        | US 2001-854885  | 20010514   |
| US 6452001  | B2   | 20020917        |                 |            |
| CA 2409842  | A1   | 20011129        | CA 2001-2409842 | 20010518   |
| EP 1296961  | A1   | 20030402        | EP 2001-960225  | 20010518   |
| EP 1296961  | B1   | 20070214        |                 |            |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |      |                 |                 |            |
| BR 2001011062   | A    | 20030610        | BR 2001-11062   | 20010518   |
| JP 2003534332   | T    | 20031118        | JP 2001-586272  | 20010518   |
| AT 353881   | T    | 20070315        | AT 2001-960225  | 20010518   |
| ZA 2002008940   | A    | 20040204        | ZA 2002-8940    | 20021104   |
| PRIORITY APPLN. INFO.:  |      |                 | EP 2000-111249  | A 20000525 |
|   |      |                 | WO 2001-EP5723  | W 20010518 |
| OTHER SOURCE(S):  |      | MARPAT 136:6018 |                 |            |
| GI  |      |                 |                 |            |



AB Title compds. I [R1, R2 = (un)substituted aryl, heteroaryl; R3 = H, alkyl, aminoalkyl, etc.; X = O, alkylimino, aminoalkylimino, etc.] were prepared for treatment of diseases related to the NK-1 receptor. Thus, I [R1 = 3,4-dichlorophenyl, R2 = 3,5-bis(trifluoromethyl)phenyl, R3 = H, X = O] was prepared in 3 steps starting from tert-Bu acrylate and 3,5-bis(trifluoromethyl)benzylamine. The affinities (pKi) of I for the NK-1 receptor were in the 8.00-9.00 range.

IC ICM C07D243-08

ICS A61K031-551; C07D487-04; A61K031-5517; C07D401-14; C07D403-06; C07D401-06; A61P029-00; A61P025-00; A61P013-10; A61P001-08

CC 28-21 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1, 63

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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=> file registry

FILE 'REGISTRY' ENTERED AT 14:02:35 ON 02 MAY 2007  
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DICTIONARY FILE UPDATES: 1 MAY 2007 HIGHEST RN 934050-43-8

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TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

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FILE LAST UPDATED: 1 May 2007 (20070501/ED)

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'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

=> d stat que L8

L1 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

L3 527 SEA FILE=REGISTRY SSS FUL L1

L7 4 SEA FILE=REGISTRY ABB=ON PLU=ON L3 AND C3/ESS

L8 3 SEA FILE=CAPLUS ABB=ON PLU=ON L7

=> d stat que L26  
L1 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

L3 527 SEA FILE=REGISTRY SSS FUL L1  
L9 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

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L25 369 SEA FILE=REGISTRY ABB=ON PLU=ON L12 NOT L24  
L26 65 SEA FILE=CAPLUS ABB=ON PLU=ON L25

=> s (L8 or L26) not L50  
L53 64 (L8 OR L26) NOT L50

=> d ibib abs hitstr L53 1-64

L53 ANSWER 1 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2007:190950 CAPLUS Full-text  
DOCUMENT NUMBER: 146:206636  
TITLE: Novel malonic acid derivatives, processes for their  
preparation, their use and pharmaceutical compositions  
containing them (inhibition of factor Xa activity)  
INVENTOR(S): Defossa, Elisabeth; Heinelt, Uwe; Klingler, Otmar;  
Zoller, Gerhard; Matter, Hans; Al-Obeidi, Fahad A.;  
Walser, Armin; Wildgoose, Peter  
PATENT ASSIGNEE(S): Hoechst Marion Roussel Deutschland GmbH, Germany  
SOURCE: PCT Int. Appl., 130pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| -----   | ---- | -----    | -----           | -----    |
| WO 2000040571   | A1   | 20000713 | WO 1999-EP10340 | 19991223 |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,  |      |          |                 |          |
| CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,     |      |          |                 |          |
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| MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,     |      |          |                 |          |
| SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW              |      |          |                 |          |
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| CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG                      |      |          |                 |          |
| EP 1016663  | A1   | 20000705 | EP 1999-100002  | 19990102 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  |      |          |                 |          |
| IE, SI, LT, LV, FI, RO  |      |          |                 |          |
| CA 2358578  | A1   | 20000713 | CA 1999-2358578 | 19991223 |
| BR 9916732  | A    | 20010925 | BR 1999-16732   | 19991223 |
| EP 1140878  | A1   | 20011010 | EP 1999-964667  | 19991223 |
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IE, SI, LT, LV, FI, RO

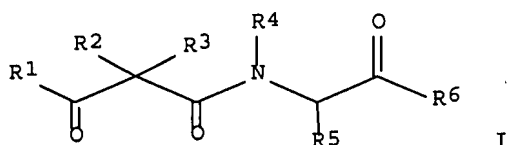
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| JP 2002534420  | T | 20021015 | JP 2000-592279 | 19991223 |
| NO 2001002983  | A | 20010615 | NO 2001-2983   | 20010615 |
| IN 2001CN00908 | A | 20050304 | IN 2001-CN908  | 20010628 |

PRIORITY APPLN. INFO.:

|                 |   |          |
|-----------------|---|----------|
| EP 1999-100002  | A | 19990102 |
| EP 1999-119537  | A | 19991001 |
| WO 1999-EP10340 | W | 19991223 |

OTHER SOURCE(S):            MARPAT 146:206636

GI



AB The present invention relates to the preparation of new compds. for the inhibition of blood clotting proteins, and more particularly, to malonic acid derivs., I (R1 = organo-amino, organo-alkoxy, etc.; R2 = H, C1-4 alkyl; R3 = (un)substituted C6-10-aryl-C1-4-alkyl; R4 = H, C1-4-alkyl, C3-7-cycloalkyl, C3-7-cycloalkyl-C1-4-alkyl, C6-10-aryl-C1-4-alkyl; R5 = H, C1-10-alkyl, C3-7-cycloalkyl, C3-7-cycloalkyl-C1-4-alkyl, C6-10-aryl, C6-10-aryl-C1-4-alkyl, etc.; R4R5 = cyclic hydrocarbyl; R6 = organo-alkoxy, organo-amino, etc.). Thus, 2-(R,S)-(4-carbamimidoylbenzyl)-N-[(S)-cyclohexyl(piperidin-4-yl-carbamoyl)methyl]-N',N'-dimethylmalonamide acetic acid salt was prepared in several steps starting from 2,2-dimethyl[1,3]dioxane-4,6-dione and 4-formyl-benzonitrile. I are inhibitors (Ki = 0.001 - 5.23  $\mu$ M) of the blood clotting enzyme factor Xa. The invention also relates to processes for the preparation of I, to methods of inhibiting factor Xa activity and of inhibiting blood clotting, to the use of I in the treatment and prophylaxis of diseases, which can be treated or prevented by the inhibition of factor Xa activity such as thromboembolic diseases, and to the use of the compds. I in the preparation of medicaments to be applied in such diseases.

IT 280553-80-2P 280553-83-5P 280553-85-7P  
 280553-87-9P 280553-91-5P 280553-96-0P  
 280554-05-4P 280554-33-8P 280554-35-0P  
 280554-36-1P 280554-37-2P 923294-55-7P  
 923294-56-8P 923294-57-9P 923294-58-0P  
 923294-59-1P 923586-00-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of malonic acid derivs. as factor Xa inhibitors and anticoagulant agents)

RN 280553-80-2 CAPLUS

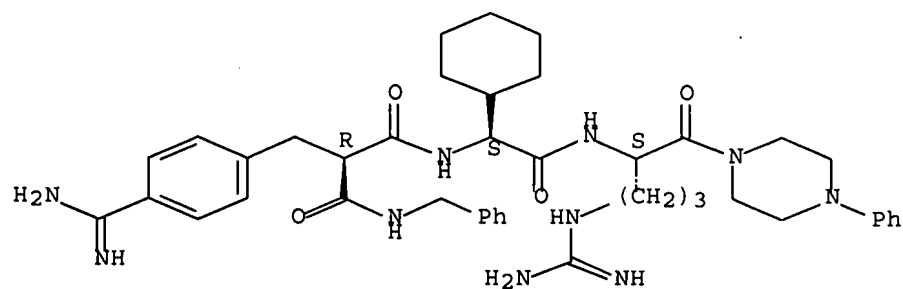
CN Glycinamide, (2R)-2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-(phenylmethyl)- $\beta$ -alaninyl-N-[(1S)-4-[(aminoiminomethyl)amino]-1-[(4-phenyl-1-piperazinyl)carbonyl]butyl]-2-cyclohexyl-, (2S)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 280553-79-9

CMF C42 H56 N10 O4

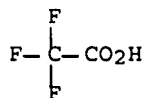
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 280553-83-5 CAPLUS

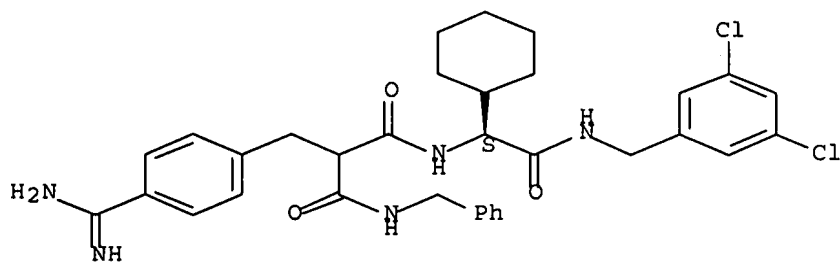
CN Propanediamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N-[(1S)-1-cyclohexyl-2-[[[(3,5-dichlorophenyl)methyl]amino]-2-oxoethyl]-N'-(phenylmethyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 280553-82-4

CMF C33 H37 Cl2 N5 O3

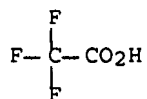
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 280553-85-7 CAPLUS

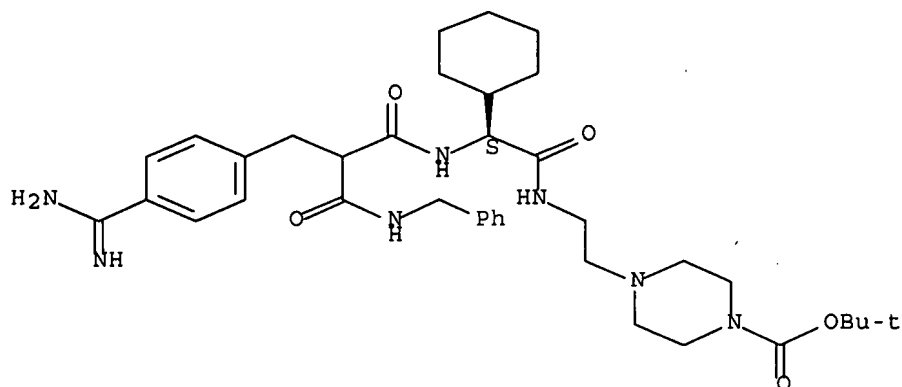
CN 1-Piperazinecarboxylic acid, 4-[2-[[[(2S)-[[2-[[4-(aminoiminomethyl)phenyl]methyl]-1,3-dioxo-3-[(phenylmethyl)amino]propyl]amino]cyclohexylacetyl]amino]ethyl]-, 1,1-dimethylethyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 280553-84-6

CMF C37 H53 N7 O5

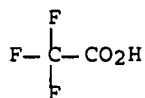
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



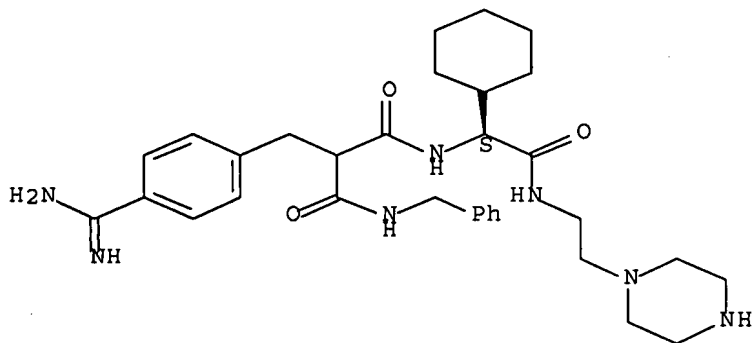
RN 280553-87-9 CAPLUS  
 CN Propanediamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N-[(1S)-1-cyclohexyl-2-oxo-2-[[2-(1-piperazinyl)ethyl]amino]ethyl]-N'-(phenylmethyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 280553-86-8

CMF C32 H45 N7 O3

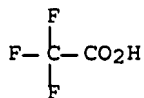
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



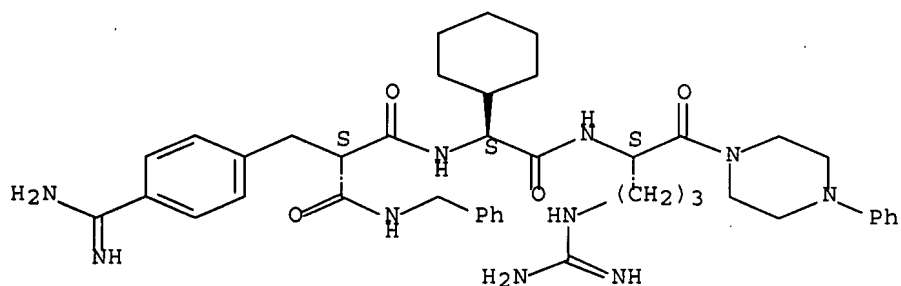
RN 280553-91-5 CAPLUS  
 CN Glycinamide, (2S)-2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-(phenylmethyl)-β-alanyl-N-[(1S)-4-[(aminoiminomethyl)amino]-1-[(4-phenyl-1-piperazinyl)carbonyl]butyl]-2-cyclohexyl-, (2S)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 280553-90-4

CMF C42 H56 N10 O4

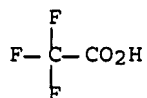
Absolute stereochemistry.



CM 2

CRN 76-05-1

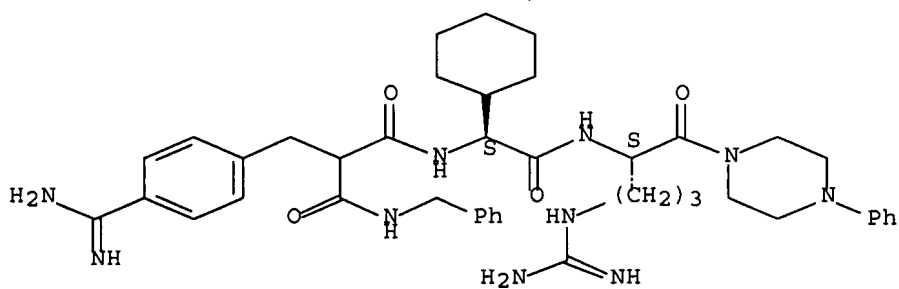
CMF C2 H F3 O2



RN 280553-96-0 CAPLUS

CN Glycinamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-(phenylmethyl)-  
β-alanyl-N-[(1S)-4-[(aminoiminomethyl)amino]-1-[(4-phenyl-1-  
piperazinyl)carbonyl]butyl]-2-cyclohexyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

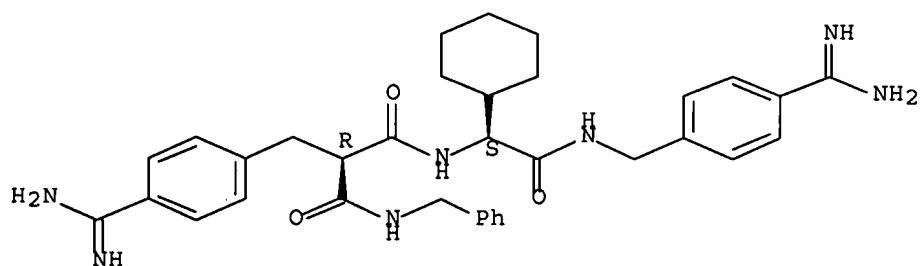


RN 280554-05-4 CAPLUS

CN Propanediamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N-[(1S)-2-[[[4-(  
aminoiminomethyl)phenyl]methyl]amino]-1-cyclohexyl-2-oxoethyl]-N'-  
(phenylmethyl)-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.





RN 280554-33-8 CAPLUS

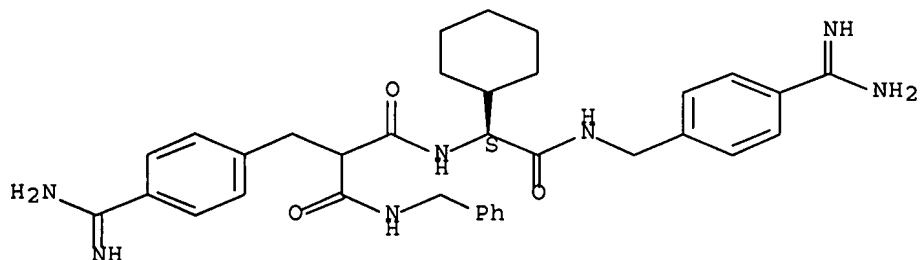
CN Propanediamide, 2-[[4-(aminoguanidomethyl)phenyl]methyl]-N-[(1S)-2-[[[4-(aminoguanidomethyl)phenyl]methyl]amino]-1-cyclohexyl-2-oxoethyl]-N'-(phenylmethyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 280554-32-7

CMF C34 H41 N7 O3

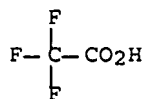
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 280554-35-0 CAPLUS

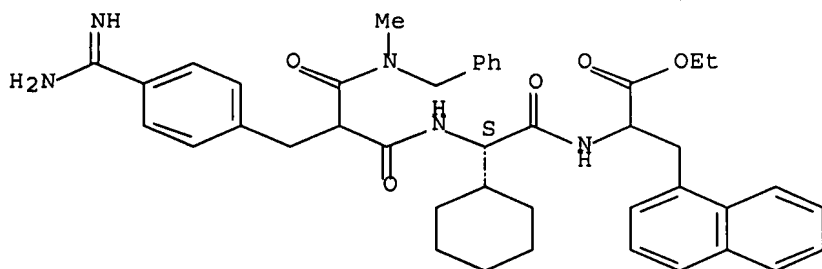
CN Alanine, 2-[[4-(aminoguanidomethyl)phenyl]methyl]-N-methyl-3-oxo-N-(phenylmethyl)-β-alanyl-(2S)-2-cyclohexylglycyl-3-(1-naphthalenyl)-, ethyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM . 1

CRN 280554-34-9

CMF C42 H49 N5 O5

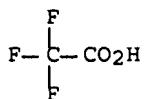
Absolute stereochemistry.



CM 2

CRN 76-05-1

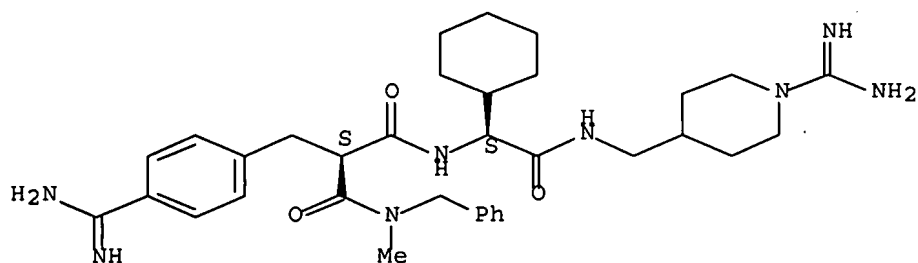
CMF C2 H F3 O2



RN 280554-36-1 CAPLUS

CN Propanediamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N'-[(1S)-2-[[[1-(aminoiminomethyl)-4-piperidinyl]methyl]amino]-1-cyclohexyl-2-oxoethyl]-N-methyl-N-(phenylmethyl)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 280554-37-2 CAPLUS

CN Propanediamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N'-[(1S)-2-[[[1-(aminoiminomethyl)-4-piperidinyl]methyl]amino]-1-cyclohexyl-2-oxoethyl]-N-

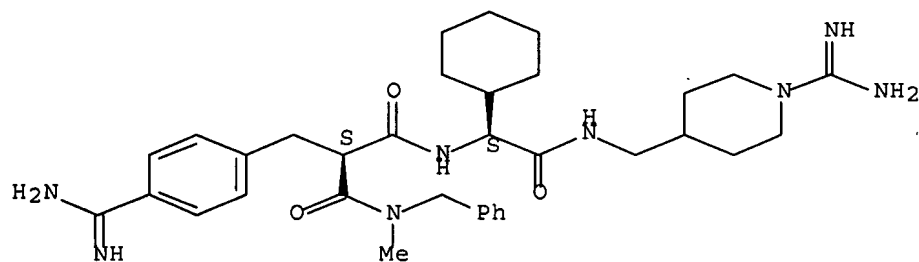
methyl-N-(phenylmethyl)-, (2S)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 280554-36-1

CMF C34 H48 N8 O3

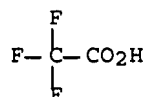
Absolute stereochemistry.



CM 2

CRN 76-05-1

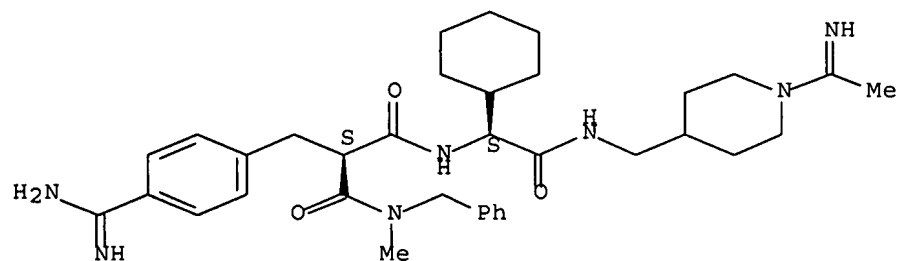
CMF C2 H F3 O2



RN 923294-55-7 CAPLUS

CN Propanediamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N3-[(1S)-1-cyclohexyl-2-[[[1-(1-iminoethyl)-4-piperidinyl]methyl]amino]-2-oxoethyl]-N1-methyl-N1-(phenylmethyl)-, (2S)- (CA INDEX NAME)

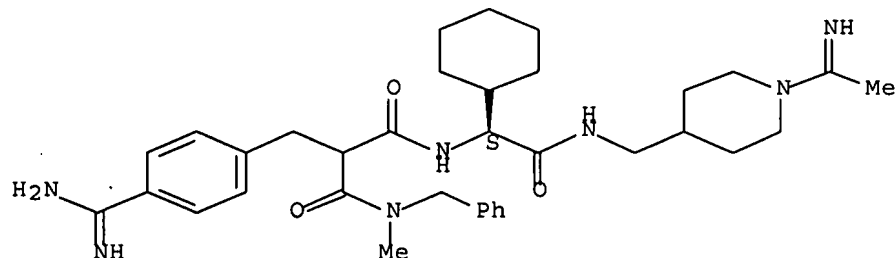
Absolute stereochemistry.



RN 923294-56-8 CAPLUS

CN Propanediamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N3-[(1S)-1-cyclohexyl-2-[[[1-(1-iminoethyl)-4-piperidinyl]methyl]amino]-2-oxoethyl]-N1-methyl-N1-(phenylmethyl)- (CA INDEX NAME)

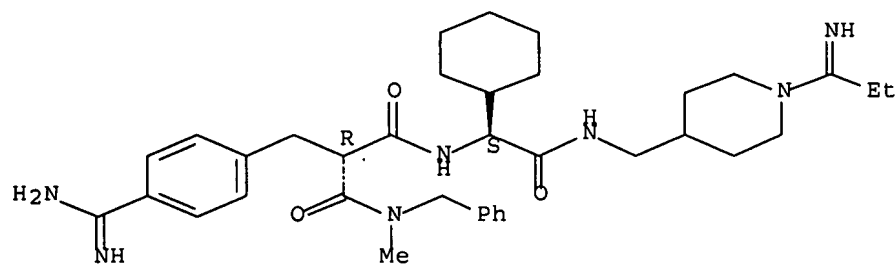
Absolute stereochemistry.



RN 923294-57-9 CAPLUS

CN Propanediamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N3-[(1S)-1-cyclohexyl-2-[[[1-(1-iminopropyl)-4-piperidinyl]methyl]amino]-2-oxoethyl]-N1-methyl-N1-(phenylmethyl)-, (2R)- (CA INDEX NAME)

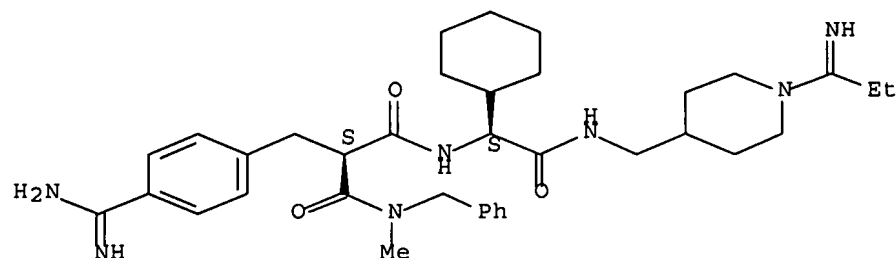
Absolute stereochemistry.



RN 923294-58-0 CAPLUS

CN Propanediamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N3-[(1S)-1-cyclohexyl-2-[[[1-(1-iminopropyl)-4-piperidinyl]methyl]amino]-2-oxoethyl]-N1-methyl-N1-(phenylmethyl)-, (2S)- (CA INDEX NAME)

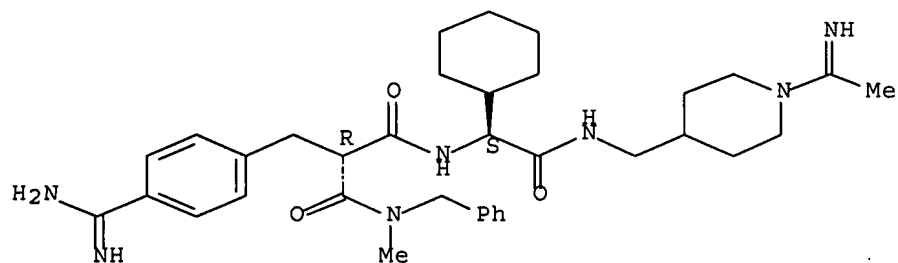
Absolute stereochemistry.



RN 923294-59-1 CAPLUS

CN Propanediamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N3-[(1S)-1-cyclohexyl-2-[[[1-(1-iminoethyl)-4-piperidinyl]methyl]amino]-2-oxoethyl]-N1-methyl-N1-(phenylmethyl)-, (2R)- (CA INDEX NAME)

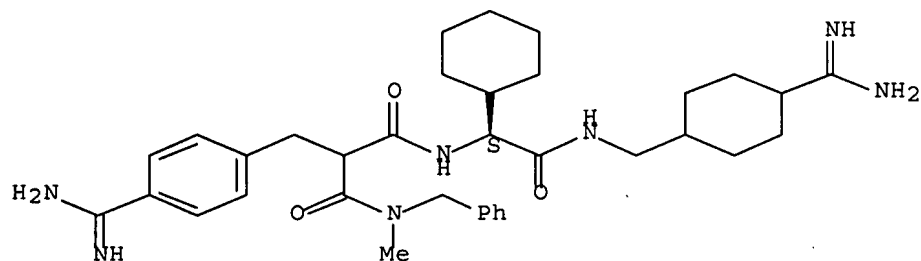
Absolute stereochemistry.



RN 923586-00-9 CAPLUS

CN Propanediamide, N3-[(1S)-2-[[[4-(aminoiminomethyl)cyclohexyl]methyl]amino]-1-cyclohexyl-2-oxoethyl]-2-[[4-(aminoiminomethyl)phenyl]methyl]-N1-methyl-N1-(phenylmethyl)- (CA INDEX NAME)

Absolute stereochemistry.



IT 280554-59-8P 280554-60-1P 280554-61-2P  
356545-90-9P 923294-54-6P 923585-99-3P

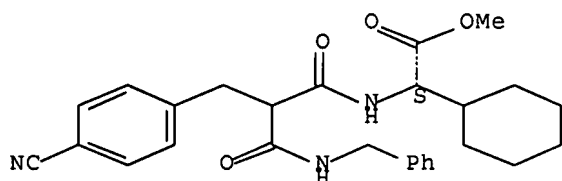
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of malonic acid derivs. as factor Xa inhibitors and anticoagulant agents)

RN 280554-59-8 CAPLUS

CN Cyclohexaneacetic acid,  $\alpha$ -[[2-[(4-cyanophenyl)methyl]-1,3-dioxo-3-[(phenylmethyl)amino]propyl]amino]-, methyl ester, ( $\alpha$ S)- (CA INDEX NAME)

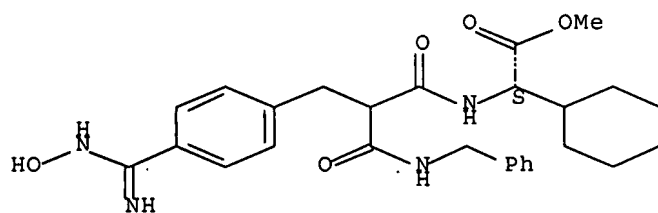
Absolute stereochemistry.



RN 280554-60-1 CAPLUS

CN Cyclohexaneacetic acid,  $\alpha$ -[[2-[[4-[(hydroxyamino)iminomethyl]phenyl]methyl]-1,3-dioxo-3-[(phenylmethyl)amino]propyl]amino]-, methyl ester, ( $\alpha$ S)- (CA INDEX NAME)

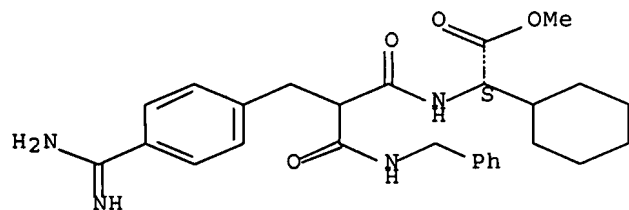
Absolute stereochemistry.



RN 280554-61-2 CAPLUS

CN Cyclohexaneacetic acid,  $\alpha$ -[[2-[[4-(aminoiminomethyl)phenyl]methyl]-1,3-dioxo-3-[(phenylmethyl)amino]propyl]amino]-, methyl ester, ( $\alpha$ S)- (CA INDEX NAME)

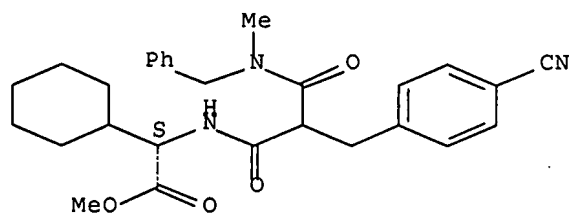
Absolute stereochemistry.



RN 356545-90-9 CAPLUS

CN Cyclohexaneacetic acid,  $\alpha$ -[[2-[[4-(4-cyanophenyl)methyl]-3-[methyl(phenylmethyl)amino]-1,3-dioxopropyl]amino]-, methyl ester, ( $\alpha$ S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 923294-54-6 CAPLUS

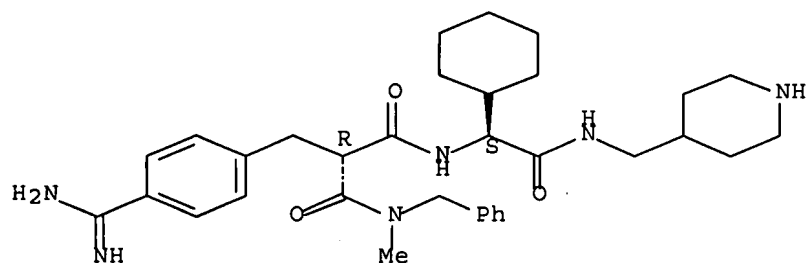
CN Propanediamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N3-[(1S)-1-cyclohexyl-2-oxo-2-[(4-piperidinylmethyl)amino]ethyl]-N1-methyl-N1-(phenylmethyl)-, (2R)-, 2,2,2-trifluoroacetate (1:2) (CA INDEX NAME)

CM 1

CRN 923294-53-5

CMF C33 H46 N6 O3

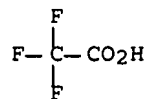
Absolute stereochemistry.



CM 2

CRN 76-05-1

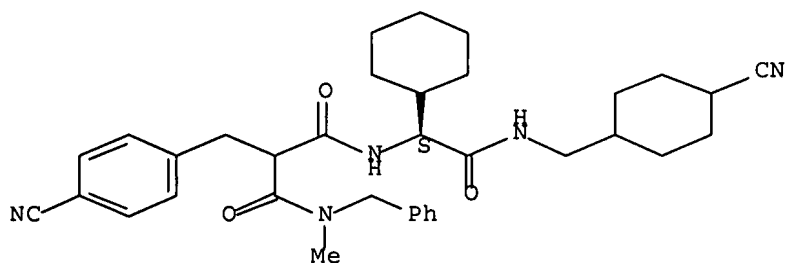
CMF C2 H F3 O2



RN 923585-99-3 CAPLUS

CN Propanediamide, N3-[(1S)-2-[[[(4-cyanocyclohexyl)methyl]amino]-1-cyclohexyl-2-oxoethyl]-2-[(4-cyanophenyl)methyl]-N1-methyl-N1-(phenylmethyl)- (CA INDEX NAME)

Absolute stereochemistry.



IT 923294-52-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of malonic acid derivs. as factor Xa inhibitors and  
anticoagulant agents)

RN 923294-52-4 CAPLUS

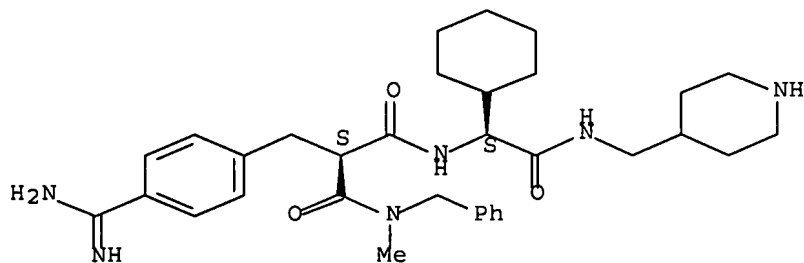
CN Propanediamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N3-[(1S)-1-  
cyclohexyl-2-oxo-2-[(4-piperidinylmethyl)amino]ethyl]-N1-methyl-N1-  
(phenylmethyl)-, (2S)-, 2,2,2-trifluoroacetate (1:2) (CA INDEX NAME)

CM 1

CRN 923294-51-3

CMF C33 H46 N6 O3

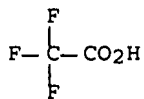
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS

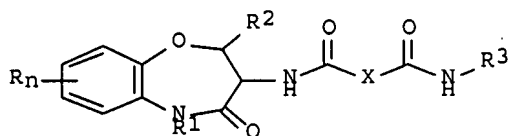


L53 ANSWER 2 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2006:544815 CAPLUS Full-text  
 DOCUMENT NUMBER: 145:28029  
 TITLE: Preparation of oxaazabenzocycloheptyl malonamides as  
 $\gamma$ -secretase inhibitors.  
 INVENTOR(S): Flohr, Alexander; Jakob-Roetne, Roland; Wostl,  
 Wolfgang  
 PATENT ASSIGNEE(S): Hoffmann-La Roche Inc., USA  
 SOURCE: U.S. Pat. Appl. Publ., 58 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| US 2006122168 | A1   | 20060608 | US 2005-289176  | 20051130 |
| US 7211573    | B2   | 20070501 |                 |          |
| WO 2006061136 | A2   | 20060615 | WO 2005-EP12834 | 20051201 |
| WO 2006061136 | A3   | 20060803 |                 |          |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  
 CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
 GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,  
 KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,  
 MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,  
 SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,  
 VN, YU, ZA, ZM, ZW  
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
 IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,  
 CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,  
 GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: EP 2004-106395 A 20041208  
 EP 2005-100816 A 20050207  
 OTHER SOURCE(S): MARPAT 145:28029  
 GI



I

AB Title compds. [I; R = halo, (halo)alkyl; R1 = R, hydroxylalkyl, alkenyl, (halo)benzyl, cycloalkyl(alkyl), etc.; R2 = H, (halo- or hydroxy-substituted) alkyl, benzyl, cycloalkyl; R3 = (halo)alkyl, (halo)benzyl, cycloalkyl(alkyl), pyridyl(alkyl); X = CR4R4', CR4R4'O; R4, R4' = H, halo, alkyl, alkoxy, OH, etc.; n = 0-2], were prepared Thus, N-[(6R,7S)-2-fluoro-9-(2-hydroxyethyl)-6-methyl-8-oxo-6,7,8,9-tetrahydro-5-oxa-9-azabenzocyclohepten-7-yl]-2-(R or S)-

hydroxy-2-methyl-N-(2,2,3,3,3-pentafluoropropyl)malonamide entity A  
(multistep preparation given) inhibited  $\gamma$ -secretase with  $IC_{50} = 7$  nM.

IT 889457-84-5P 889457-85-6P

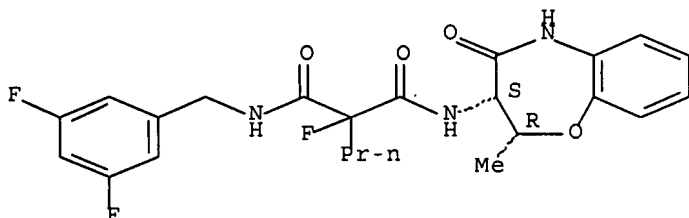
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
(Uses)

(claimed compound; preparation of oxaazabenzocycloheptyl malonamides as  
 $\gamma$ -secretase inhibitors)

RN 889457-84-5 CAPLUS

CN Propanediamide, N-[(3,5-difluorophenyl)methyl]-2-fluoro-2-propyl-N'-  
[(2R,3S)-2,3,4,5-tetrahydro-2-methyl-4-oxo-1,5-benzoxazepin-3-yl]- (9CI)  
(CA INDEX NAME)

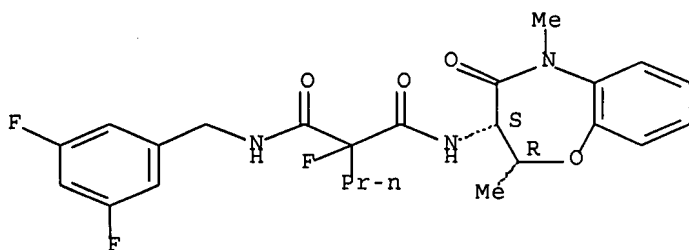
Absolute stereochemistry.



RN 889457-85-6 CAPLUS

CN Propanediamide, N-[(3,5-difluorophenyl)methyl]-2-fluoro-2-propyl-N'-  
[(2R,3S)-2,3,4,5-tetrahydro-2,5-dimethyl-4-oxo-1,5-benzoxazepin-3-yl]-  
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 889458-03-1P 889458-05-3P 889458-14-4P

889458-15-5P 889458-42-8P

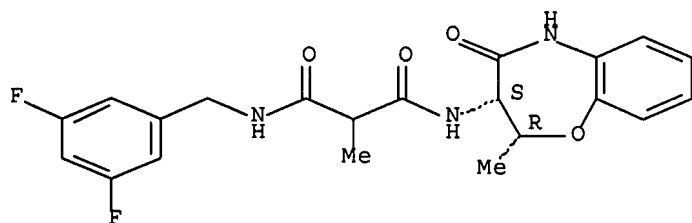
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
(Uses)

(preparation of oxaazabenzocycloheptyl malonamides as  $\gamma$ -secretase  
inhibitors)

RN 889458-03-1 CAPLUS

CN Propanediamide, N-[(3,5-difluorophenyl)methyl]-2-methyl-N'-[(2R,3S)-  
2,3,4,5-tetrahydro-2-methyl-4-oxo-1,5-benzoxazepin-3-yl]- (9CI) (CA INDEX  
NAME)

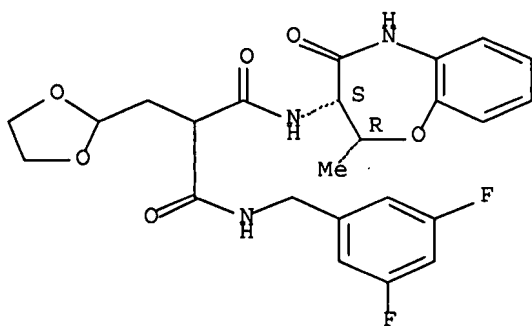
Absolute stereochemistry.



RN 889458-05-3 CAPLUS

CN Propanediamide, N-[(3,5-difluorophenyl)methyl]-2-(1,3-dioxolan-2-ylmethyl)-N'-[(2R,3S)-2,3,4,5-tetrahydro-2-methyl-4-oxo-1,5-benzoxazepin-3-yl]-(9CI) (CA INDEX NAME)

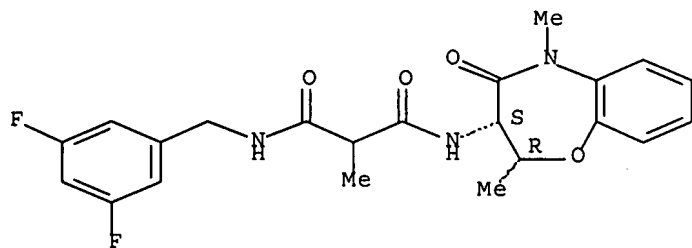
Absolute stereochemistry.



RN 889458-14-4 CAPLUS

CN Propanediamide, N-[(3,5-difluorophenyl)methyl]-2-methyl-N'-[(2R,3S)-2,3,4,5-tetrahydro-2,5-dimethyl-4-oxo-1,5-benzoxazepin-3-yl]-(9CI) (CA INDEX NAME)

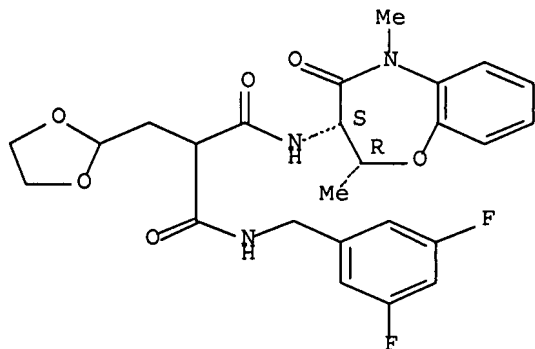
Absolute stereochemistry.



RN 889458-15-5 CAPLUS

CN Propanediamide, N-[(3,5-difluorophenyl)methyl]-2-(1,3-dioxolan-2-ylmethyl)-N'-[(2R,3S)-2,3,4,5-tetrahydro-2,5-dimethyl-4-oxo-1,5-benzoxazepin-3-yl]-(9CI) (CA INDEX NAME)

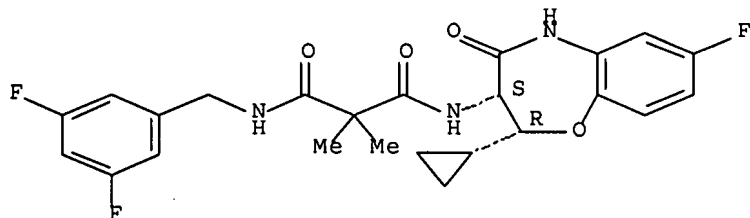
Absolute stereochemistry.



RN 889458-42-8 CAPLUS

CN Propanediamide, N-[(2R,3S)-2-cyclopropyl-7-fluoro-2,3,4,5-tetrahydro-4-oxo-1,5-benzoxazepin-3-yl]-N'-[(3,5-difluorophenyl)methyl]-2,2-dimethyl-, rel-(9CI) (CA INDEX NAME)

Relative stereochemistry.



L53 ANSWER 3 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1314177 CAPLUS Full-text

DOCUMENT NUMBER: 144:51616

TITLE: Preparation of diazepinediones as ligands of melanocortin 1 and/or 4 receptors

INVENTOR(S): Szewczyk, Jerzy Ryszard; Speake, Jason Daniel; Sammond, Douglas Mccord; Sherrill, Ronald George

PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA

SOURCE: PCT Int. Appl., 92 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| WO 2005118573  | A1   | 20051215 | WO 2005-US18773 | 20050527 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, |      |          |                 |          |

SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,  
 ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,  
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
 MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

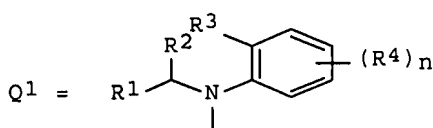
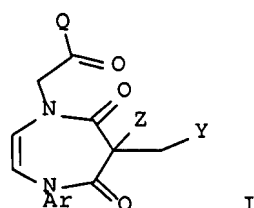
US 2004-575644P

P 20040528

OTHER SOURCE(S):

MARPAT 144:51616

GI



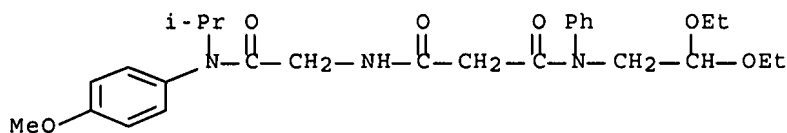
AB Title compds. [I; Ar = (substituted) aryl, heteroaryl; Y = specified indazolyl, benzimidazolyl, oxobenzimidazolyl; Z = H, alkoxy; Q = Q1; R1, R2, R4 = H, OH, haloalkyl, alkoxy, haloalkoxy, amino; n = 0-2; R3 = H; R2R3 = atoms to form 6-7 membered ring], were prepared Thus, 2-[2,4-dioxo-3-(1H-indazol-3-ylmethylene)-5-phenyl-2,3,4,5-tetrahydro-1H-1,5-diazepin-1-yl]-N-(4-chlorophenyl)-N-isopropylacetamide hydrochloride (multistep preparation given) showed MC4R agonist activity with pEC50 = 7.37.

IT 179083-73-9P 179083-74-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of diazepinediones as ligands of melanocortin-1 and/or 4 receptors)

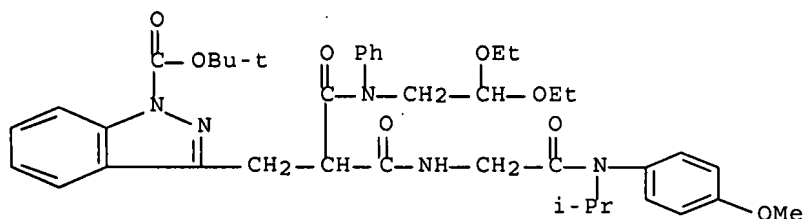
RN 179083-73-9 CAPLUS

CN Glycinamide, N-(2,2-diethoxyethyl)-3-oxo-N-phenyl-β-alanyl-N-(4-methoxyphenyl)-N-(1-methylethyl)- (9CI) (CA INDEX NAME)



RN 179083-74-0 CAPLUS

CN Glycinamide, N-(2,2-diethoxyethyl)-2-[[1-[(1,1-dimethylethoxy)carbonyl]-1H-indazol-3-yl]methyl]-3-oxo-N-phenyl-β-alanyl-N-(4-methoxyphenyl)-N-(1-methylethyl)- (9CI) (CA INDEX NAME)



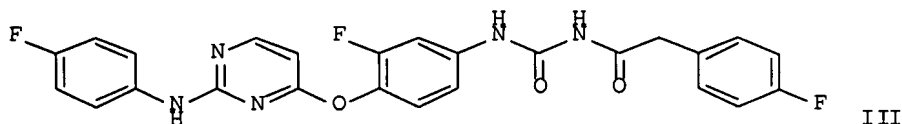
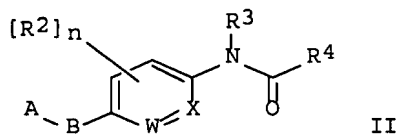
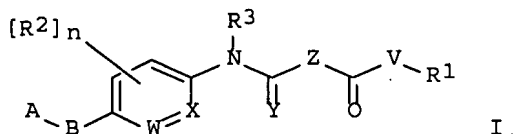
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 4 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2005:1176889 CAPLUS Full-text  
 DOCUMENT NUMBER: 143:440434  
 TITLE: Preparation of monocyclic heterocycles as kinase inhibitors, particularly Met kinase, for treating cancer  
 INVENTOR(S): Borzilleri, Robert M.; Cornelius, Lyndon A. M.; Schmidt, Robert J.; Schroeder, Gretchen M.; Kim, Kyoung S.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 128 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|---|------|----------|-----------------|------------|
| US 2005245530   | A1   | 20051103 | US 2005-111144  | 20050421   |
| AU 2005249382   | A1   | 20051215 | AU 2005-249382  | 20050422   |
| CA 2563831  | A1   | 20051215 | CA 2005-2563831 | 20050422   |
| WO 2005117867   | A2   | 20051215 | WO 2005-US14120 | 20050422   |
| WO 2005117867   | A3   | 20060330 |                 |            |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |      |          |                 |            |
| RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |            |
| EP 1737451  | A2   | 20070103 | EP 2005-779444  | 20050422   |
| R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, HR, LV, MK, YU   |      |          |                 |            |
| NO 2006005148   | A    | 20061108 | NO 2006-5148    | 20061108   |
| PRIORITY APPLN. INFO.:  |      |          |                 |            |
|   |      |          | US 2004-564842P | P 20040423 |
|   |      |          | US 2004-639178P | P 20041223 |
|   |      |          | US 2005-111144  | A 20050421 |
|   |      |          | WO 2005-US14120 | W 20050422 |

OTHER SOURCE(S):  
GI

MARPAT 143:440434



AB The invention is related to compds. of formula I and II [wherein R<sup>1</sup> = H, (un)substituted alk(en/yn)yl, hetero/aryl, etc.; each R<sup>2</sup> = independently H, halo, CN, NO<sub>2</sub>, alkyl, etc.; B = O, S, SO, SO<sub>2</sub>, NH, etc.; V = NH and derivs., (CH<sub>2</sub>)<sub>p</sub> and derivs. with proviso; p = 0-4; W, X = independently C, N; Z = CH<sub>2</sub> and derivs.; (CH<sub>2</sub>)<sub>q</sub>-NH and derivs.; q = 0-2; R<sup>3</sup> = H, (un)substituted heterocyclyl, alk(en/yn)yl, cycloalkyl, hetero/aryl, etc.; R<sup>4</sup> = (un)substituted hetero/aryl, heterocycloalkyl with provisos; A = (un)substituted pyridin-4-yl, pyrimidin-4-yl, pyridazin-4-yl, etc.] their enantiomers, diastereomers, hydrates, solvates, and pharmaceutically acceptable salts, as protein kinase, particularly Met kinase, inhibitors and methods for using them for the treatment of cancer. E.g., a 4 step synthesis of pyrimidine II, starting from 2,4-dichloropyrimidine and N-(3-fluoro-4-hydroxyphenyl)acetamide, was given. Preferred compds. I inhibited Met kinase with IC<sub>50</sub> values between 0.01 and 100 μM.

IT 868736-02-1P

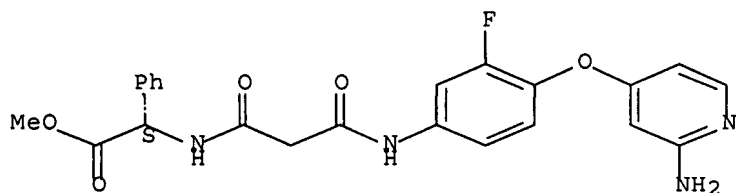
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(drug candidate; preparation of monocyclic heterocycles as kinase inhibitors  
for treating cancer)

RN 868736-02-1 CAPLUS

CN Benzeneacetic acid, α-[[3-[[4-[(2-amino-4-pyridinyl)oxy]-3-fluorophenyl]amino]-1,3-dioxopropyl]amino]-, methyl ester, monohydrochloride, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

IT 868736-03-2P

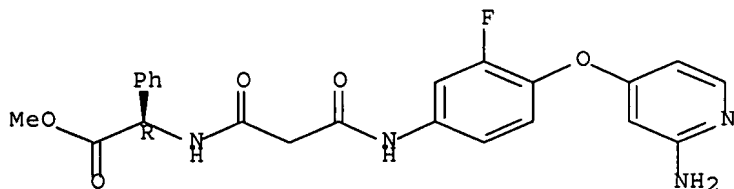
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of monocyclic heterocycles as kinase inhibitors for treating cancer)

RN 868736-03-2 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[3-[[4-[(2-amino-4-pyridinyl)oxy]-3-fluorophenyl]amino]-1,3-dioxopropyl]amino]-, methyl ester, monohydrochloride, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

L53 ANSWER 5 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:323777 CAPLUS Full-text

DOCUMENT NUMBER: 142:378922

TITLE: Method for decreasing sebum production using malonamide acyl CoA cholesterol acyl transferase inhibitors

INVENTOR(S): Kostlan, Catherine R.; Raheja, Raj Neil; Tugnait, Meera; Wade, Kimberly

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 17 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|------|-----------------|------|
|------------|------|------|-----------------|------|



|               |    |          |                 |          |
|---------------|----|----------|-----------------|----------|
| US 2005079144 | A1 | 20050414 | US 2004-958306  | 20041005 |
| AU 2004280134 | A1 | 20050421 | AU 2004-280134  | 20040927 |
| CA 2541814    | A1 | 20050421 | CA 2004-2541814 | 20040927 |
| WO 2005034931 | A1 | 20050421 | WO 2004-IB3156  | 20040927 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

|            |    |          |                |          |
|------------|----|----------|----------------|----------|
| EP 1673077 | A1 | 20060628 | EP 2004-769499 | 20040927 |
|------------|----|----------|----------------|----------|

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK

|               |   |          |                  |          |
|---------------|---|----------|------------------|----------|
| CN 1863521    | A | 20061115 | CN 2004-80029467 | 20040927 |
| BR 2004015136 | A | 20061128 | BR 2004-15136    | 20040927 |
| JP 2007508291 | T | 20070405 | JP 2006-530738   | 20040927 |
| NO 2006001277 | A | 20060629 | NO 2006-1277     | 20060321 |

PRIORITY APPLN. INFO.: US 2003-509984P P 20031009  
WO 2004-IB3156 W 20040927

OTHER SOURCE(S): MARPAT 142:378922

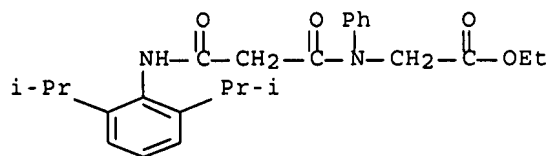
AB The present invention is directed to the topical application of the malonamide acyl CoA cholesterol acyl transferase (ACAT) inhibitors. Other aspects of the invention are directed to topical formulations of these diamides, their use to treat sebaceous gland disorders and their use to alleviate oily skin. Efficacy of a series of ACAT inhibitors in decreasing sebum production in hamster ear sebaceous glands is shown.

IT 137379-32-9

RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)  
(method for decreasing sebum production using malonamide acyl CoA cholesterol acyl transferase inhibitors)

RN 137379-32-9 CAPLUS

CN Glycine, N-[3-[[2,6-bis(1-methylethyl)phenyl]amino]-1,3-dioxopropyl]-N-phenyl-, ethyl ester (9CI) (CA INDEX NAME)



L53 ANSWER 6 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:652532 CAPLUS Full-text

DOCUMENT NUMBER: 141:172870

TITLE: Conjugates of haptens and  $\beta$ -lactam derivatives for quantifying haptens in solution and device for implementation thereof

INVENTOR(S): Kohl, Michel; Renotte, Roger; Sarlet, Guy; Lejeune,

PATENT ASSIGNEE(S): Robert; Granier, Benoit  
 SOURCE: Belg.  
 U.S. Pat. Appl. Publ., 33 pp., Cont.-in-part of U.S.  
 Ser. No. 171,819.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE        |
|------------------------|------|----------|-----------------|-------------|
| US 2004157262          | A1   | 20040812 | US 2001-915211  | 20010725    |
| BE 1010184             | A3   | 19980203 | BE 1996-384     | 19960430    |
| US 6436649             | B1   | 20020820 | US 1999-171819  | 19990611    |
| PRIORITY APPLN. INFO.: |      |          | BE 1996-384     | A 19960430  |
|                        |      |          | US 1999-171819  | A2 19990611 |
|                        |      |          | WO 1997-BE52    | W 19970430  |

AB The present invention is related to a conjugate of a hapten to a natural or synthetic  $\beta$ -lactam derivative, comprising at least a side chain, wherein the side chain of the  $\beta$ -lactam derivative is at least partially constitutive of the conjugating arm. The invention relates also to a method for the immunoassay of the hapten involving said  $\beta$ -lactam derivative-hapten conjugate as an inhibitor for a lactamase or a penicillin detector capable of specific recognition of the  $\beta$ -lactamic moiety of said conjugate. The hapten is a steroid, drug of abuse and medicine e.g. nandrolone, testosterone, progesterone, estradiol and cocaine; and the  $\beta$ -lactam derivative is a penicillin derivative or cephalosporin derivative e.g. carbenicillin, oxacillin, cefuroxime, cefotaxime, methicillin, benzylpenicillin and phenoxymethylpenicillin.

IT 198830-23-8P

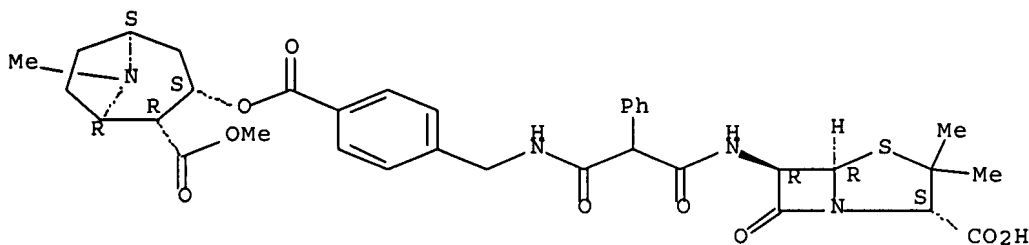
RL: ARU (Analytical role, unclassified); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

(conjugates of haptens and  $\beta$ -lactam derivs. for quantifying haptens in solution and device for implementation thereof)

RN 198830-23-8 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-2-carboxylic acid, 3-[[4-[[[3-[[[(2S,5R,6R)-2-carboxy-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]hept-6-yl]amino]-1,3-dioxo-2-phenylpropyl]amino]methyl]benzoyl]oxy]-8-methyl-, 2-methyl ester, (1R,2R,3S,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



ACCESSION NUMBER: 2004:648538 CAPLUS Full-text

DOCUMENT NUMBER: 141:191072

TITLE: Preparation and use of chemically-modified metabolites of regulatory peptides

INVENTOR(S): Peri, Krishna; Habi, Abdelkrim; Gravel, Denis

PATENT ASSIGNEE(S): Theratechnologies Inc., Can.

SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| WO 2004067548 | A2   | 20040812 | WO 2004-CA131   | 20040130 |
| WO 2004067548 | A3   | 20041209 |                 |          |
| WO 2004067548 | B1   | 20050217 |                 |          |

W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI

|               |    |          |                |          |
|---------------|----|----------|----------------|----------|
| US 2005059605 | A1 | 20050317 | US 2004-768974 | 20040130 |
|---------------|----|----------|----------------|----------|

PRIORITY APPLN. INFO.: US 2003-443860P P 20030131

OTHER SOURCE(S): MARPAT 141:191072

AB The invention relates to peptides B-A-CO-P or their pharmaceutically-acceptable salts, where P is a dipeptidyl-peptidase (DPPIV) peptide metabolite of regulatory peptides obtained by cleavage of the two N-terminal amino acids, A is (hetero)alk(en)(yn)ylene or Ph and B is (un)substituted (hetero)aryl or cycloalkyl. More specifically, the invention relates to conferring biol. activity to metabolites of regulatory peptides by the covalent coupling of small mols. Thus, 3-(4-methoxyphenethylamino)-3-oxopropanoyl-GLP-1 (9-36) was prepared by solid-phase peptide chemical and N-acylation and shown to produce a more significant hypoglycemic response in mice compared to native GLP-1.

IT 736176-31-1P 736176-32-2P 736176-38-8P

736176-39-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

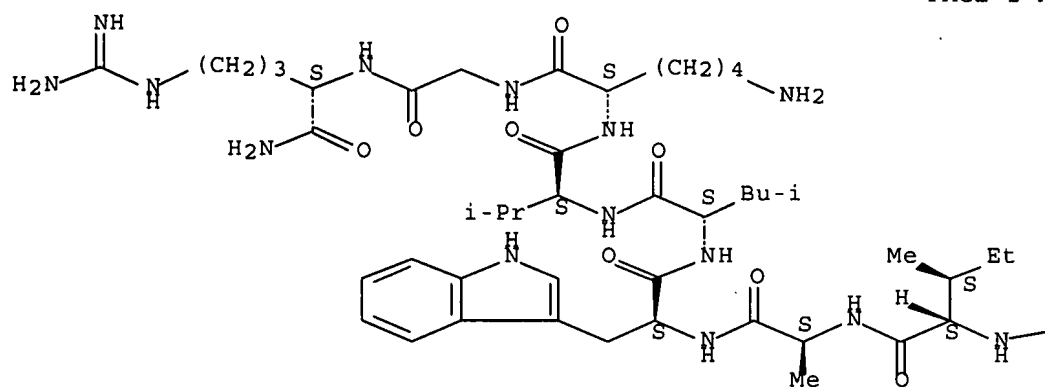
(preparation and use of chemical-modified metabolites of regulatory peptides)

RN 736176-31-1 CAPLUS

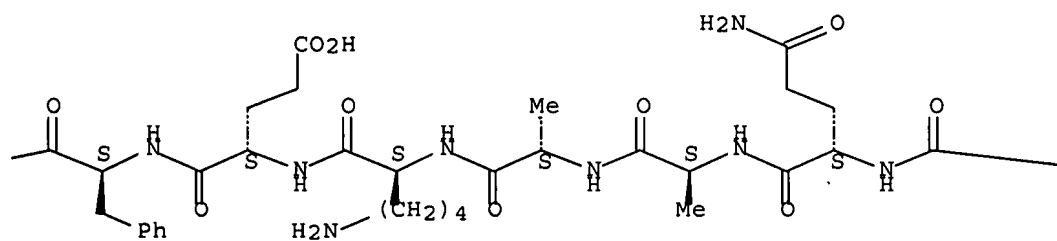
CN L-Argininamide, 3-oxo-N-(2-phenylethyl)- $\beta$ -alanyl-L- $\alpha$ -glutamylglycyl-L-threonyl-L-phenylalanyl-L-threonyl-L-seryl-L- $\alpha$ -aspartyl-L-valyl-L-seryl-L-seryl-L-tyrosyl-L-leucyl-L- $\alpha$ -glutamylglycyl-L-glutaminyl-L-alanyl-L-alanyl-L-lysyl-L- $\alpha$ -glutamyl-L-phenylalanyl-L-isoleucyl-L-alanyl-L-tryptophyl-L-leucyl-L-valyl-L-lysylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

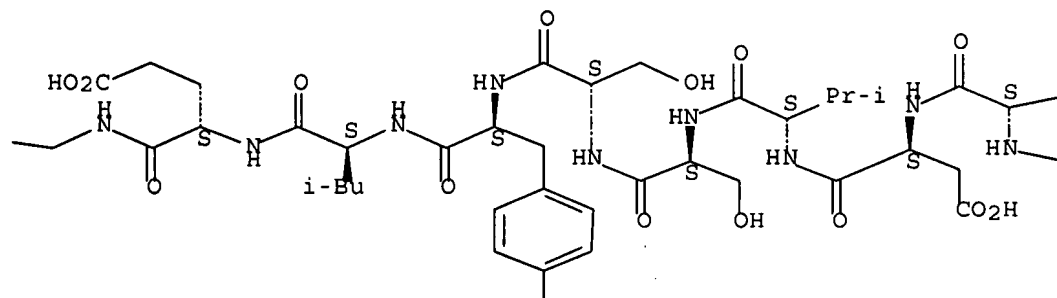
PAGE 1-A



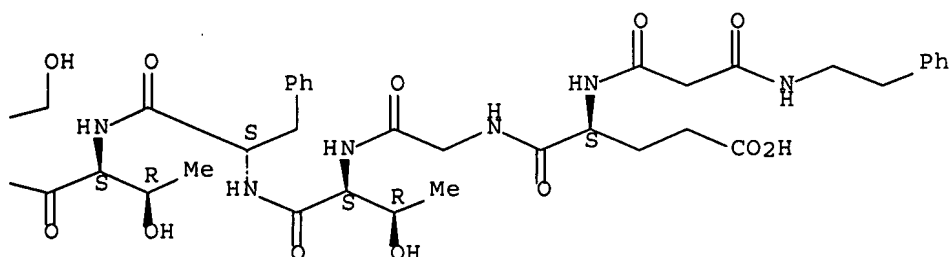
PAGE 1-B



PAGE 1-C



PAGE 1-D



PAGE 2-C

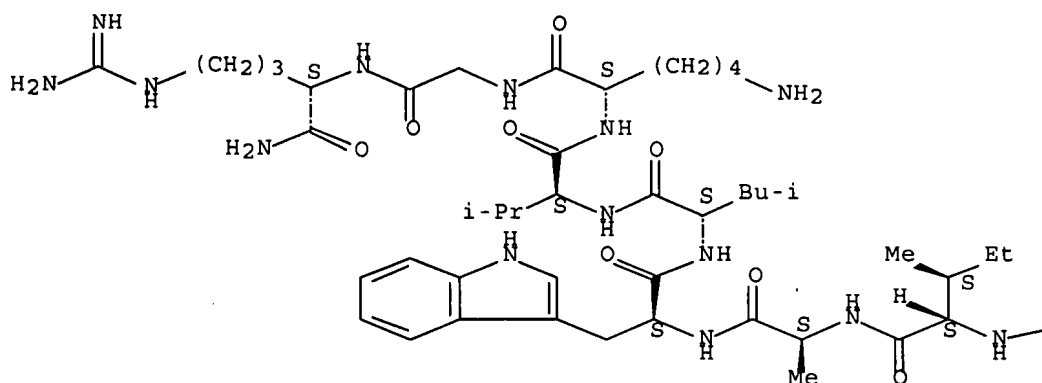


RN 736176-32-2 CAPLUS

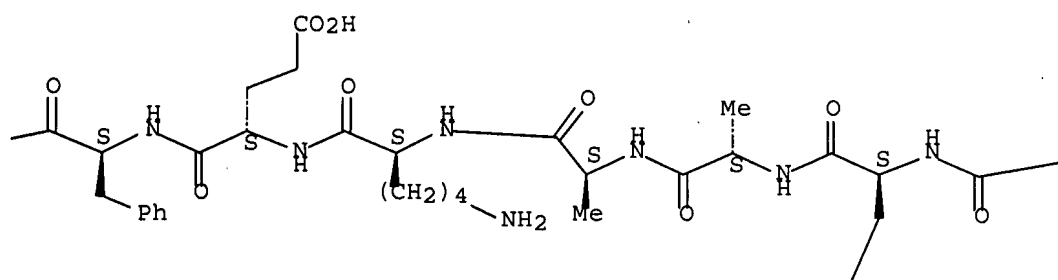
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Absolute stereochemistry.

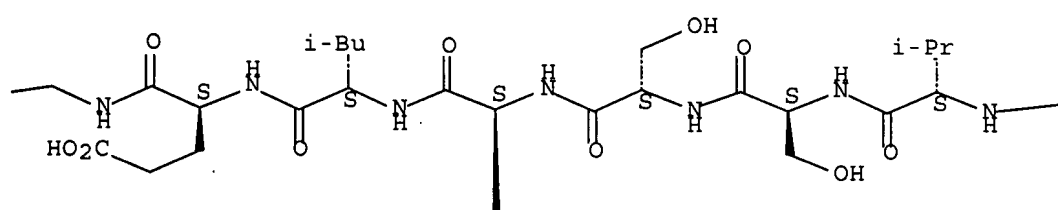
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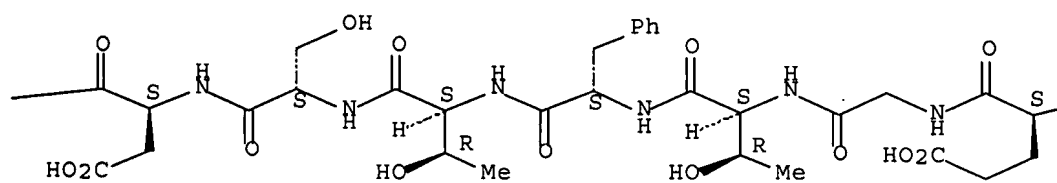
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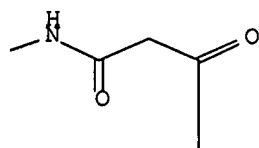
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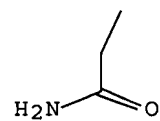
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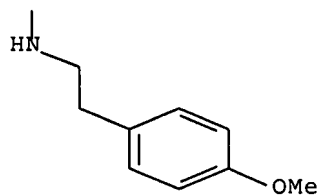
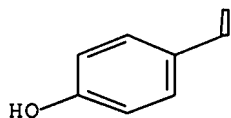


PAGE 1-E



PAGE 2-B

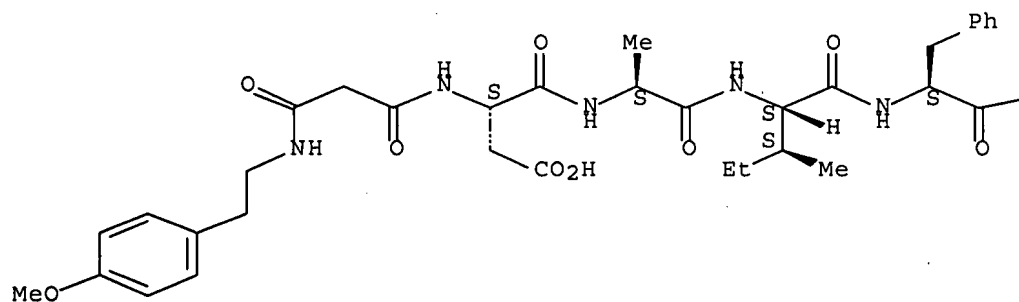




RN 736176-38-8 CAPLUS

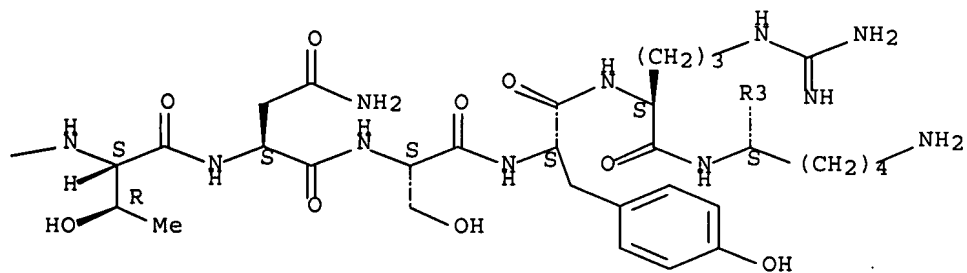
CN L-Argininamide, N-[2-(4-methoxyphenyl)ethyl]-3-oxo- $\beta$ -alanyl-L- $\alpha$ -aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-asparaginyl-L-seryl-L-tyrosyl-L-arginyl-L-lysyl-L-valyl-L-leucylglycyl-L-glutaminyl-L-leucyl-L-seryl-L-alanyl-L-arginyl-L-lysyl-L-leucyl-L-leucyl-L-glutaminyl-L- $\alpha$ -aspartyl-L-isoleucyl-L-methionyl-L-seryl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

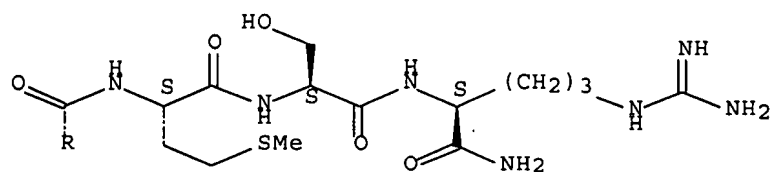




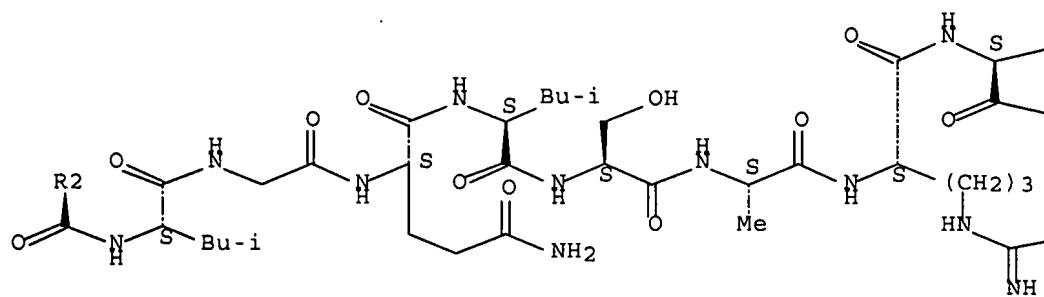
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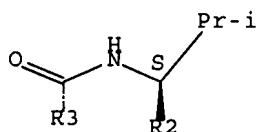
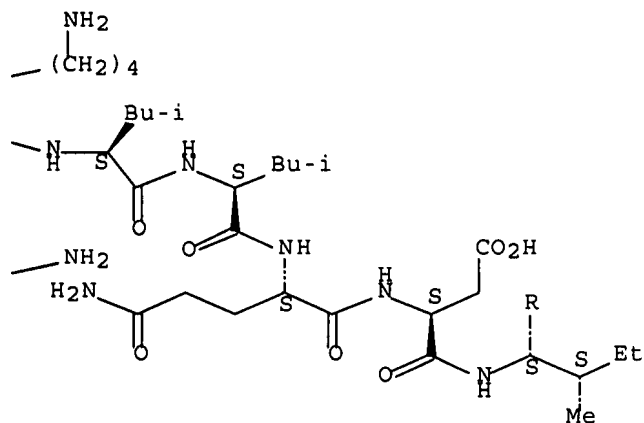


PAGE 2-A



PAGE 3-A



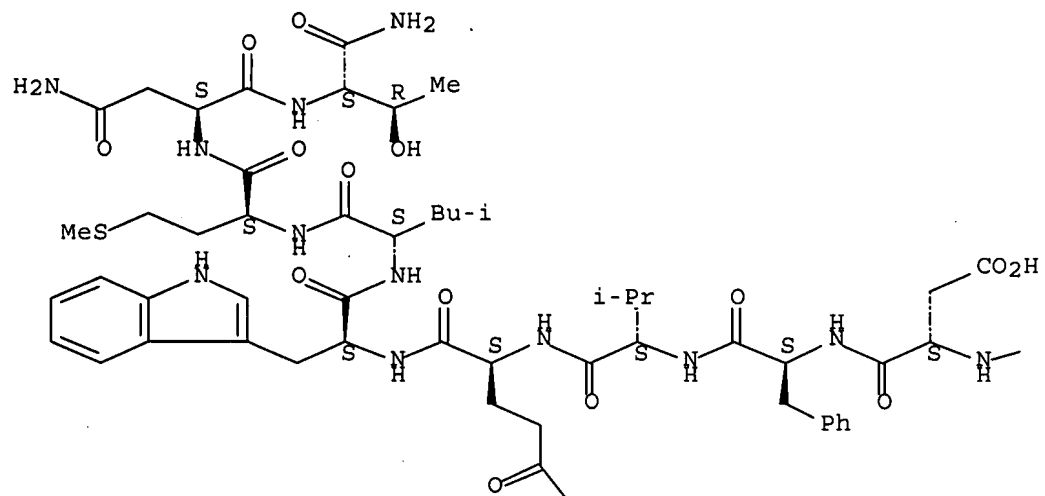


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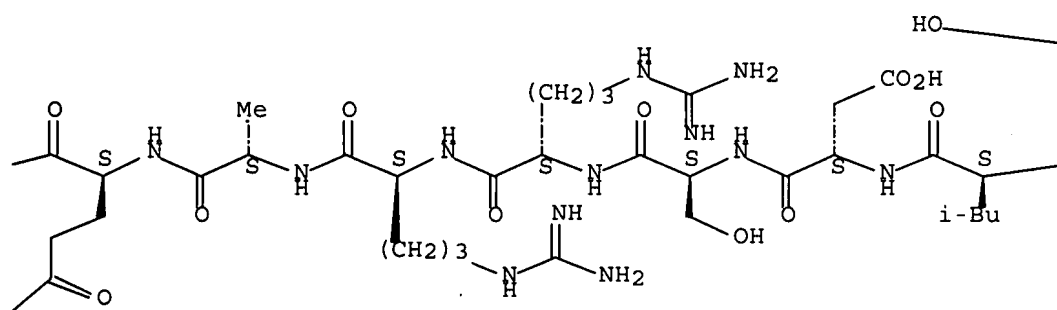
CN L-Threoninamide, N-[2-(4-methoxyphenyl)ethyl]-3-oxo-β-alanyl-L-glutaminylglycyl-L-threonyl-L-phenylalanyl-L-threonyl-L-seryl-L-α-aspartyl-L-tyrosyl-L-seryl-L-lysyl-L-tyrosyl-L-leucyl-L-α-aspartyl-L-seryl-L-arginyl-L-arginyl-L-alanyl-L-glutaminyl-L-α-aspartyl-L-phenylalanyl-L-valyl-L-glutaminyl-L-tryptophyl-L-leucyl-L-methionyl-L-asparaginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

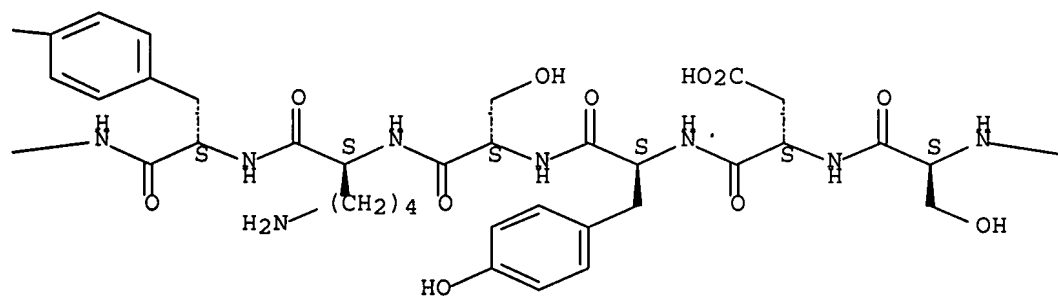
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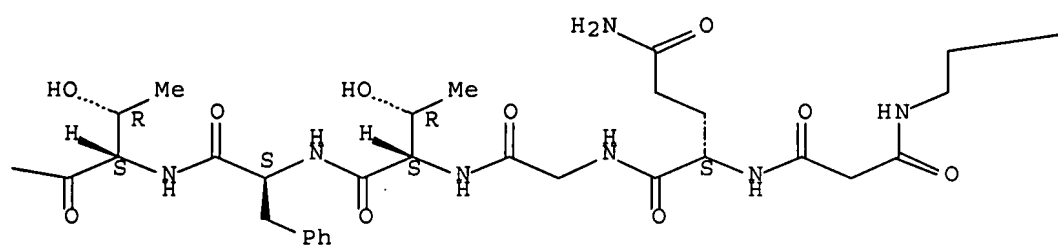
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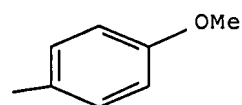
PAGE 1-C



PAGE 1-D



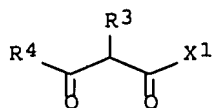
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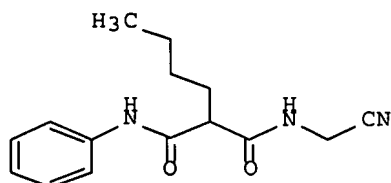
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L53 ANSWER 8 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2002:946095 CAPLUS Full-text  
 DOCUMENT NUMBER: 138:24322  
 TITLE: Preparation of malonamides as cathepsin inhibitors  
 INVENTOR(S): Patterson, John W.; Zipfel, Sheila  
 PATENT ASSIGNEE(S): Celera, USA  
 SOURCE: PCT Int. Appl., 67 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.             | KIND   | DATE     | APPLICATION NO. | DATE       |
|------------------------|--|----------|-----------------|------------|
| WO 2002098406          | A1   | 20021212 | WO 2002-US17922 | 20020604   |
| W:                     | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW |          |                 |            |
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| CA 2449021             | A1   | 20021212 | CA 2002-2449021 | 20020604   |
| AU 2002312357          | A1   | 20021216 | AU 2002-312357  | 20020604   |
| EP 1399146             | A1   | 20040324 | EP 2002-739721  | 20020604   |
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| CN 1512880             | A  | 20040714 | CN 2002-811289  | 20020604   |
| JP 2005500275          | T  | 20050106 | JP 2003-501445  | 20020604   |
| NZ 529903              | A  | 20050930 | NZ 2002-529903  | 20020604   |
| US 2004147503          | A1   | 20040729 | US 2003-478632  | 20031124   |
| NO 2003005365          | A  | 20040220 | NO 2003-5365    | 20031202   |
| ZA 2003009371          | A  | 20050527 | ZA 2003-9371    | 20031202   |
| IN 2003DN02092         | A  | 20060120 | IN 2003-DN2092  | 20031204   |
| PRIORITY APPLN. INFO.: |  |          | US 2001-295744P | P 20010604 |
|                        |  |          | WO 2002-US17922 | W 20020604 |
| OTHER SOURCE(S):       | MARPAT 138:24322   |          |                 |            |
| GI                     |  |          |                 |            |



I



II

AB The title malonamides I [wherein X1 = substituted amino; R3 = (un)substituted alkyl; R4 = (un)substituted amino; with provisos; and the N-oxide derivs., prodrugs, protected derivs., isomers, mixts. of isomers, pharmaceutically acceptable salts, and solvates thereof] were prepared as selective cathepsin S inhibitors. For example, a solution of aniline in CH<sub>2</sub>Cl<sub>2</sub> was treated with Me malonyl chloride in the presence of Et<sub>3</sub>N, followed by reaction with 1-iodobutane in N-methylpyrrolidinone in the presence of LiOH to give Me 2-phenylcarbamoylhexanoate. The above compound was treated with NaOH in MeOH, followed by the addition of 1 N aqueous HCl solution to afford 2-phenylcarbamoylhexanoic acid (74%). The hexanoic acid in DMF was treated with PyBOP, aminoacetonitrile bisulfate, and Et<sub>3</sub>N to provide 2-butyl-N-cyanomethyl-N'-phenylmalonamide (II) (57%). I showed inhibition consts. against cathepsin S in the range of 10<sup>-10</sup> M to 10<sup>-7</sup> M. Pharmaceutical formulations containing a compound of formula I were also presented.

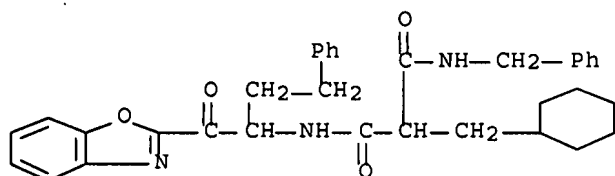
IT 477860-82-5P 477861-17-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(cathepsin inhibitor; preparation of malonamides via condensation reactions of malonic acids with amines as cathepsin inhibitors)

RN 477860-82-5 CAPLUS

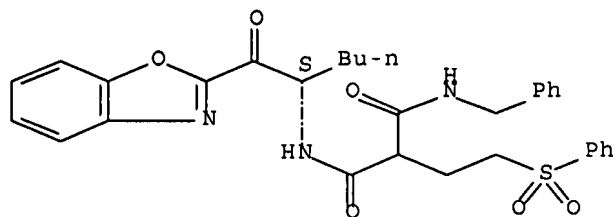
CN Propanediamide, N-[1-(2-benzoxazolylcarbonyl)-3-phenylpropyl]-2-(cyclohexylmethyl)-N'-(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 477861-17-9 CAPLUS

CN Propanediamide, N-[(1S)-1-(2-benzoxazolylcarbonyl)pentyl]-N'-(phenylmethyl)-2-[2-(phenylsulfonyl)ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

1

THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 9 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:631914 CAPLUS Full-text

DOCUMENT NUMBER: 135:195426

TITLE: Preparation of malonic acid amide derivatives as inhibitors of blood clotting factor Xa

INVENTOR(S): Al-Obeidi, Fahad; Walser, Armin; Wildgoose, Peter

PATENT ASSIGNEE(S): Aventis Pharma Deutschland G.m.b.H., Germany

SOURCE: Eur. Pat. Appl., 69 pp.

CODEN: EPXXDW

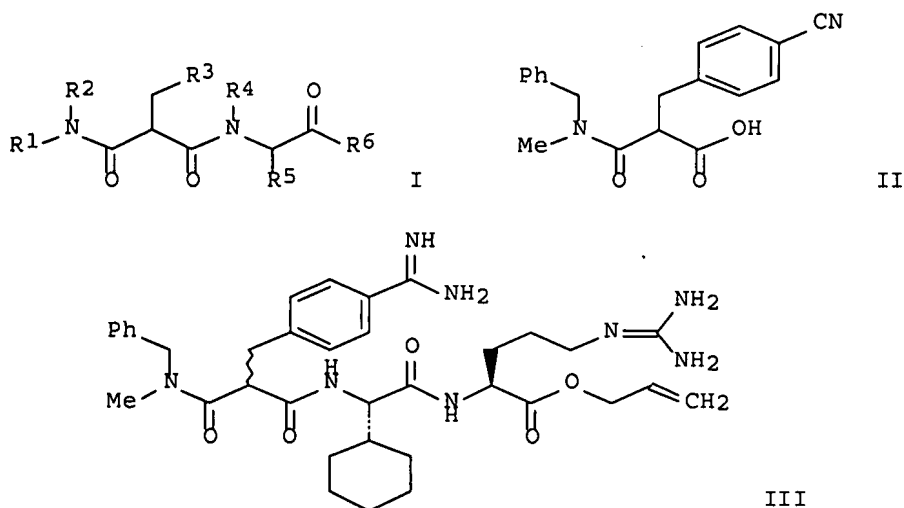
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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| -----   | ----              | -----    | -----           | -----      |
| EP 1127884  | A1                | 20010829 | EP 2000-104041  | 20000226   |
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| BR 2001008694   | A                 | 20021210 | BR 2001-8694    | 20010121   |
| CA 2400871  | A1                | 20010830 | CA 2001-2400871 | 20010221   |
| WO 2001062735   | A1                | 20010830 | WO 2001-EP1928  | 20010221   |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW |                   |          |                 |            |
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| JP 2003524001   | T                 | 20030812 | JP 2001-562517  | 20010221   |
| NZ 520982   | A                 | 20040528 | NZ 2001-520982  | 20010221   |
| AT 314350   | T                 | 20060115 | AT 2001-907546  | 20010221   |
| ES 2254370  | T3                | 20060616 | ES 2001-1907546 | 20010221   |
| US 2002022596   | A1                | 20020221 | US 2001-790641  | 20010223   |
| US 6794365  | B2                | 20040921 |                 |            |
| ZA 2002006581   | A                 | 20030728 | ZA 2002-6581    | 20020816   |
| NO 2002004040   | A                 | 20020924 | NO 2002-4040    | 20020823   |
| PRIORITY APPLN. INFO.:  |                   |          | EP 2000-104041  | A 20000226 |
|   |                   |          | WO 2001-EP1928  | W 20010221 |
| OTHER SOURCE(S):  | MARPAT 135:195426 |          |                 |            |
| GI  |                   |          |                 |            |



AB Title compds. I [R1 = H, alk(en)yl, aryl(alkyl); R2 = H, alkyl; R3 = aryl; R4 = H, alkyl, etc.; R5 = (cyclo)alkyl, cycloalkyl-alkyl, aryl(alkyl), etc.; R6 = NH<sub>2</sub>, OH or substituted derivs.] are prepared. Examples included 3 synthetic procedures (including a general solid phase method), over 100 compds. prepared and 8 bioassays (data provided for 1 of the bioassays). For instance, benzyl Me amine was treated with bis(trimethylsilyl)acetamide (DCM, reflux, 3 h) followed by addition of 4-[(2,2-dimethyl-4,6-dioxo-1,3-dioxan-5-yl)methyl]benzonitrile (DCM, reflux, 3 h) to give II. II was coupled to (αS)-amino-cyclohexane- acetic acid Me ester (iPr<sub>2</sub>EtN, HODhbt, DCC, DMF, 10°C) and the resulting amide-nitrile reacted with excess hydroxylamine (EtOH, reflux, 4 h) to give the corresponding N-hydroxy carbamimidoyl derivative. This intermediate was deoxygenated (Pd-H<sub>2</sub>/C), hydrolyzed (HCl aq, CH<sub>3</sub>CN, 4 days @ room temperature) and coupled with (S)-2-amino-5-guanidinopentanoic acid allyl ester (DMF, collidine, HATU) to give III. Isomers of III were separated by chromatog. (MPLC, RP18) and isolated as the trifluoroacetic acid salts. An isomer of III had K<sub>i</sub> = 0.0010 μM for factor Xa. The invention also provides methods for the treatment/prevention of (e.g.) thromboembolic diseases.

IT 356543-22-1P 356543-24-3P 356543-26-5P  
 356543-28-7P 356543-36-7P 356543-38-9P  
 356543-46-9P 356543-51-6P 356543-57-2P  
 356543-69-6P 356543-75-4P 356543-83-4P  
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RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (drug; preparation of malonic acid amide derivs. as inhibitors of blood clotting factor Xa)

RN 356543-22-1 CAPLUS



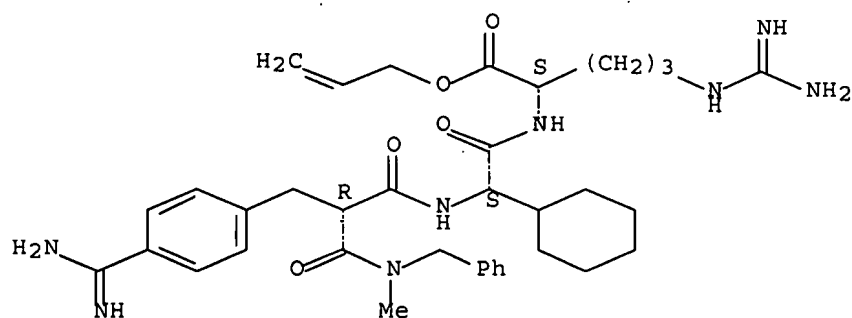
CN L-Arginine, (2R)-2-[[4-(aminoiminomethyl)phenyl]methyl]-N-methyl-3-oxo-N-(phenylmethyl)-β-alanyl-(2S)-2-cyclohexylglycyl-, 2-propenyl ester, trifluoroacetate (9CI) (CA INDEX NAME)

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CRN 356543-21-0

CMF C36 H50 N8 O5

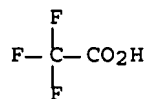
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 356543-24-3 CAPLUS

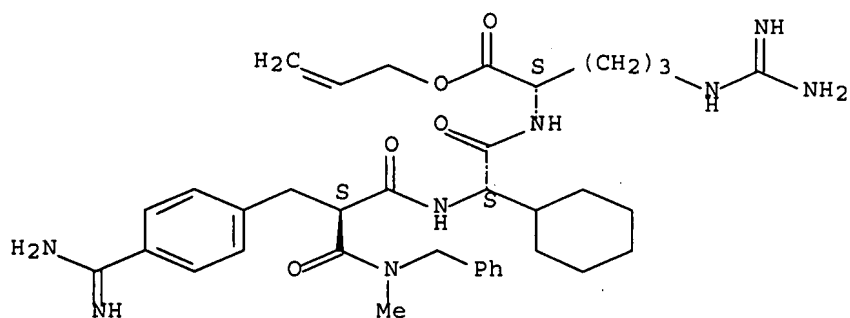
CN L-Arginine, (2S)-2-[[4-(aminoiminomethyl)phenyl]methyl]-N-methyl-3-oxo-N-(phenylmethyl)-β-alanyl-(2S)-2-cyclohexylglycyl-, 2-propenyl ester, trifluoroacetate (9CI) (CA INDEX NAME)

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CRN 356543-23-2

CMF C36 H50 N8 O5

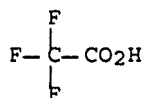
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 356543-26-5 CAPLUS

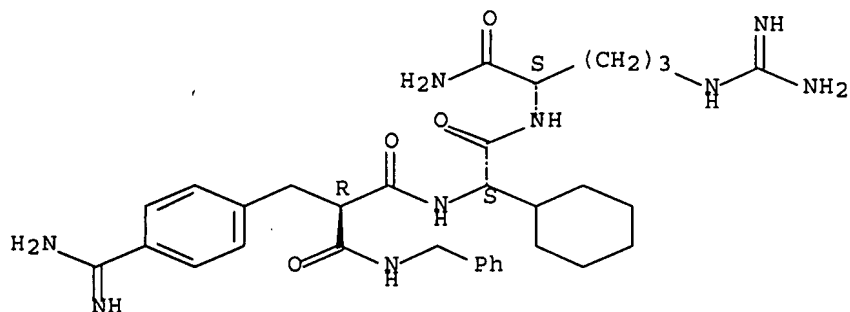
CN L-Argininamide, (2R)-2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-(phenylmethyl)-β-alanyl-(2S)-2-cyclohexylglycyl-, trifluoroacetate (9CI) (CA INDEX NAME)

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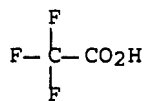
CMF C32 H45 N9 O4

Absolute stereochemistry.



CM 2

CRN 76-05-1  
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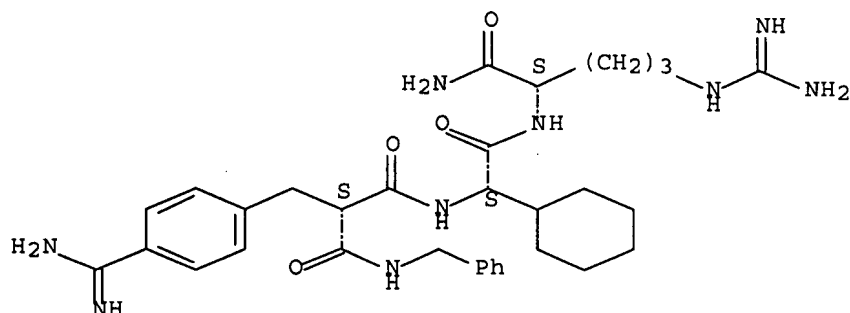


RN 356543-28-7 CAPLUS  
CN L-Argininamide, (2S)-2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-(phenylmethyl)-β-alanyl-(2S)-2-cyclohexylglycyl-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

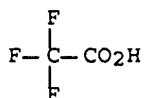
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Absolute stereochemistry.



CM 2

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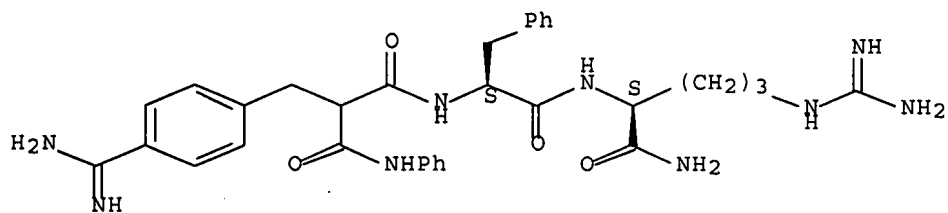


RN 356543-36-7 CAPLUS  
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CM 1

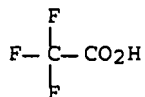
CRN 356543-35-6  
CMF C32 H39 N9 O4

Absolute stereochemistry.



CM 2

CRN 76-05-1  
CMF C2 H F3 O2

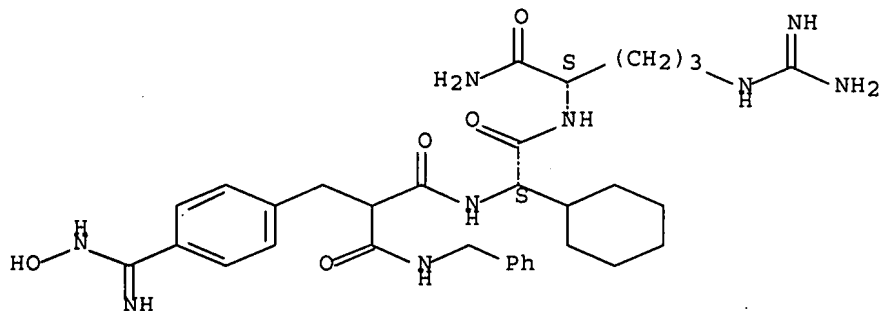


RN 356543-38-9 CAPLUS  
CN L-Argininamide, 2-[[4-[(hydroxyamino)iminomethyl]phenyl]methyl]-3-oxo-N-(phenylmethyl)-β-alanyl-(2S)-2-cyclohexylglycyl-, trifluoroacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 356543-37-8  
CMF C32 H45 N9 O5

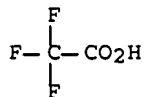
Absolute stereochemistry.



CM 2

CRN 76-05-1

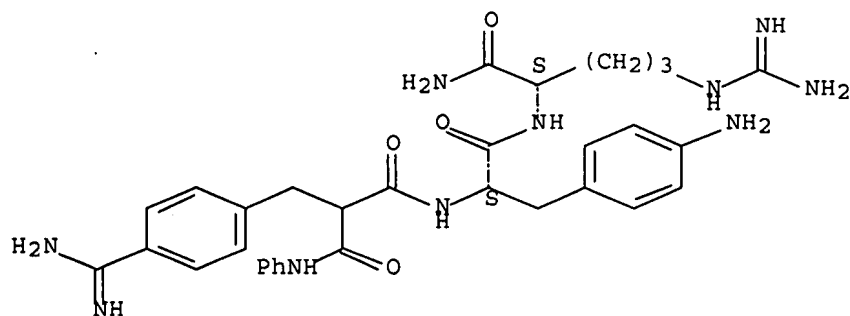
CMF C2 H F3 O2



RN 356543-46-9 CAPLUS

CN L-Argininamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-phenyl- $\beta$ -alanyl-4-amino-L-phenylalanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 356543-51-6 CAPLUS

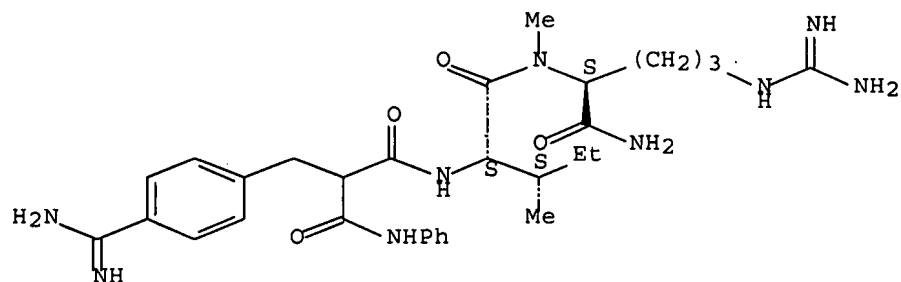
CN L-Argininamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-phenyl- $\beta$ -alanyl-L-isoleucyl-N2-methyl-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 356543-50-5

CMF C30 H43 N9 O4

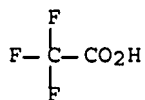
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 356543-57-2 CAPLUS

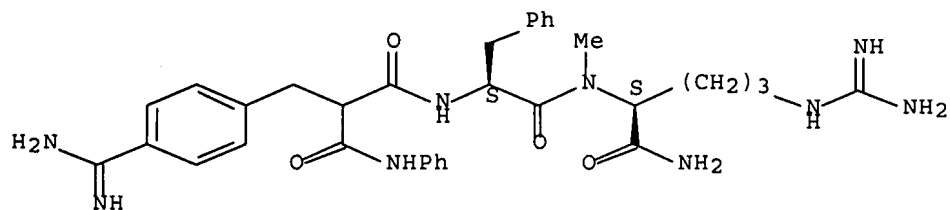
CN L-Argininamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-phenyl- $\beta$ -alanyl-L-phenylalanyl-N<sup>2</sup>-methyl-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 356543-56-1

CMF C33 H41 N9 O4

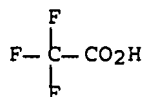
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 356543-69-6 CAPLUS

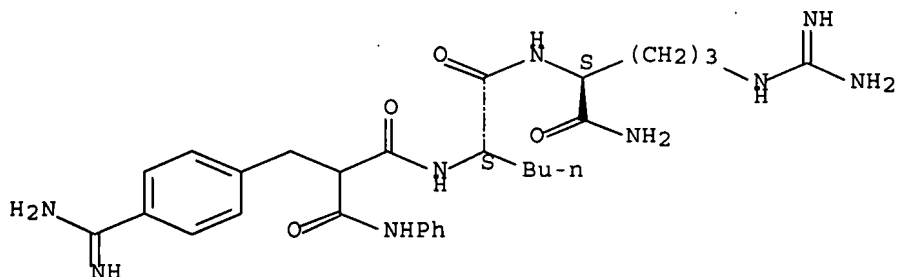
CN L-Argininamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-phenyl- $\beta$ -alanyl-L-norleucyl-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 356543-68-5

CMF C29 H41 N9 O4

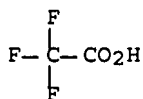
Absolute stereochemistry.



CM 2

CRN 76-05-1

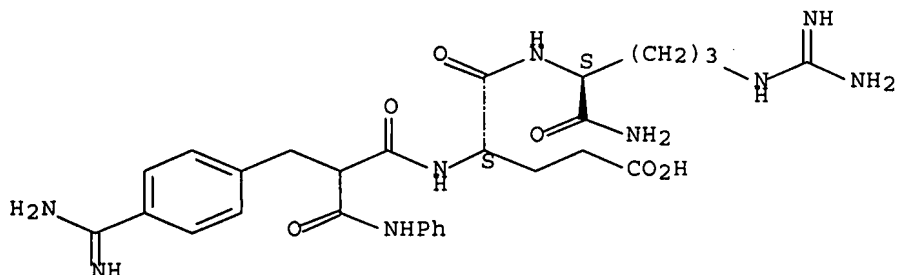
CMF C2 H F3 O2



RN 356543-75-4 CAPLUS

CN L-Argininamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-phenyl-  
β-alanyl-L-α-glutamyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 356543-83-4 CAPLUS

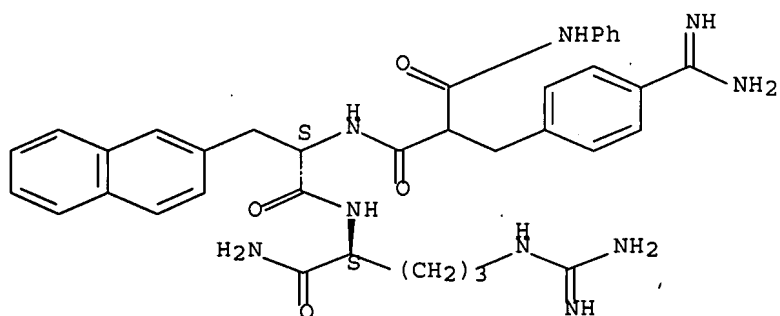
CN L-Argininamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-phenyl-  
β-alanyl-3-(2-naphthalenyl)-L-alanyl-, trifluoroacetate (9CI) (CA  
INDEX NAME)

CM 1

CRN 356543-82-3

CMF C36 H41 N9 O4

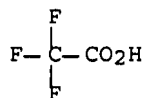
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 356543-91-4 CAPLUS

CN L-Argininamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-phenyl-  
β-alanyl-(αS)-α-aminobenzenebutanoyl-, trifluoroacetate  
(9CI) (CA INDEX NAME)

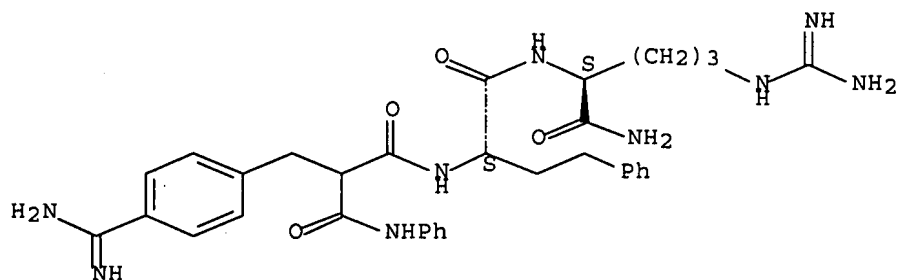
CM 1

CRN 356543-90-3

CMF C33 H41 N9 O4

Absolute stereochemistry.

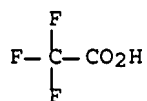




CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 356543-99-2 CAPLUS

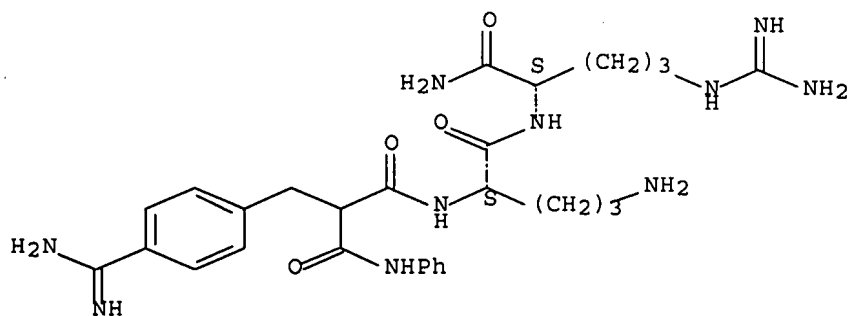
CN L-Argininamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-phenyl-beta-alanyl-L-ornithyl-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 356543-98-1

CMF C28 H40 N10 O4

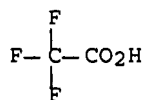
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2

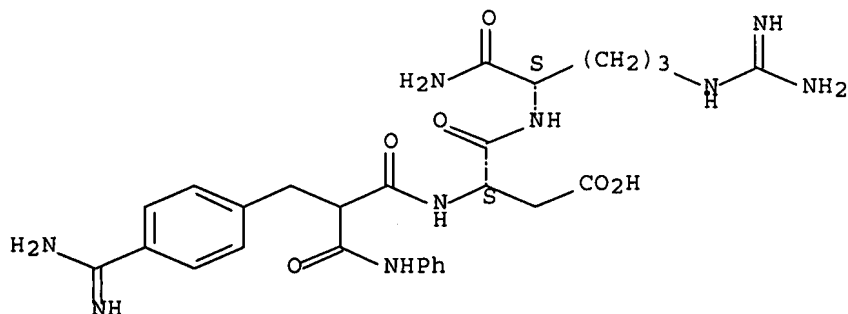


RN 356544-07-5 CAPLUS  
 CN L-Argininamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-phenyl-  
 β-alanyl-L-α-aspartyl-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

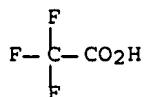
CRN 356544-06-4  
 CMF C27 H35 N9 O6

Absolute stereochemistry.



CM 2

CRN 76-05-1  
 CMF C2 H F3 O2

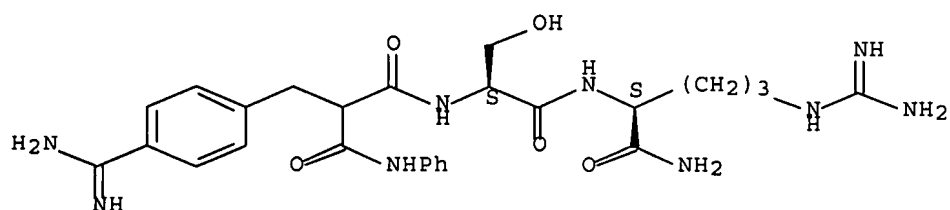


RN 356544-15-5 CAPLUS  
 CN L-Argininamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-phenyl-  
 β-alanyl-L-seryl-, trifluoroacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 356544-14-4  
 CMF C26 H35 N9 O5

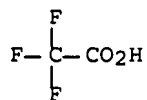
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 356544-24-6 CAPLUS

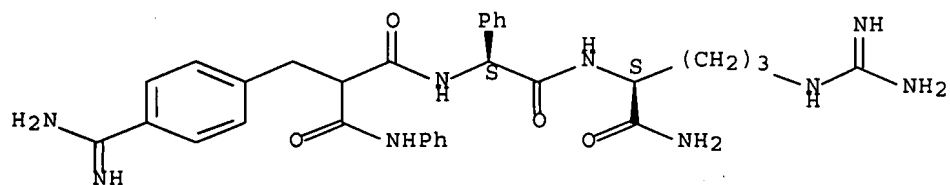
CN L-Argininamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-phenyl- $\beta$ -alanyl-(2S)-2-phenylglycyl-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 356544-23-5

CMF C31 H37 N9 O4

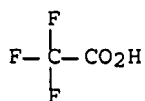
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2

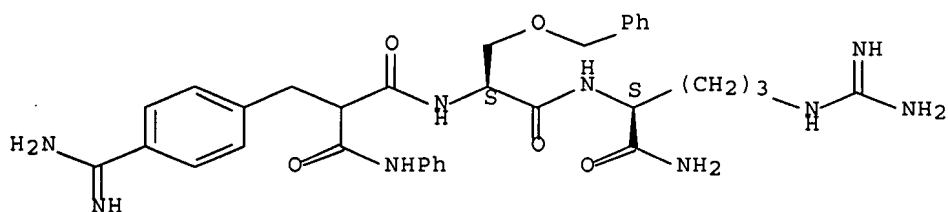


RN 356544-32-6 CAPLUS  
 CN L-Argininamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-phenyl-  
 β-alanyl-O-(phenylmethyl)-L-seryl-, trifluoroacetate (9CI) (CA INDEX  
 NAME)

CM 1

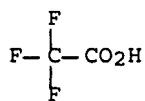
CRN 356544-31-5  
 CMF C33 H41 N9 O5

Absolute stereochemistry.



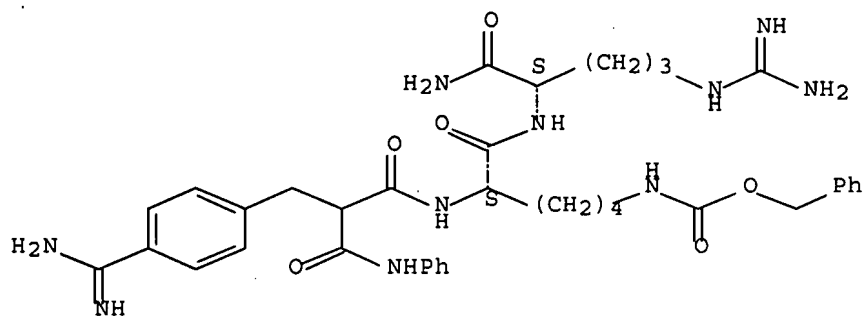
CM 2

CRN 76-05-1  
 CMF C2 H F3 O2



RN 356544-36-0 CAPLUS  
 CN L-Argininamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-phenyl-  
 β-alanyl-N6-[(phenylmethoxy)carbonyl]-L-lysyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 356544-52-0 CAPLUS

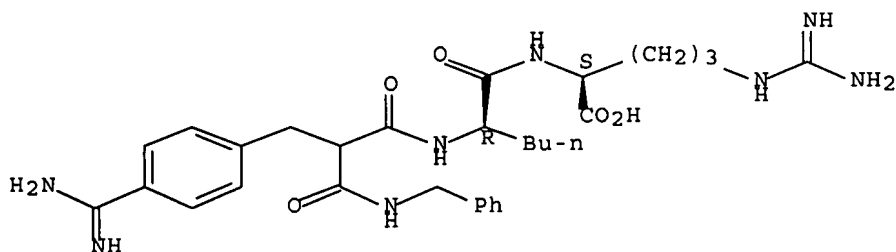
CN L-Arginine, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-(phenylmethyl)-  
β-alanyl-D-norleucyl-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 356544-51-9

CMF C30 H42 N8 O5

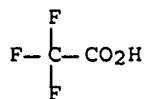
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



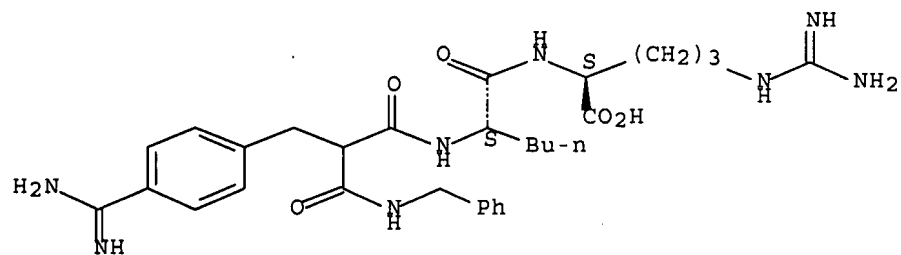
RN 356544-62-2 CAPLUS

CN L-Arginine, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-(phenylmethyl)-  
β-alanyl-L-norleucyl-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

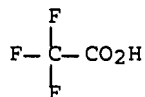
CRN 356544-61-1  
CMF C30 H42 N8 O5

Absolute stereochemistry.



CM 2

CRN 76-05-1  
CMF C2 H F3 O2

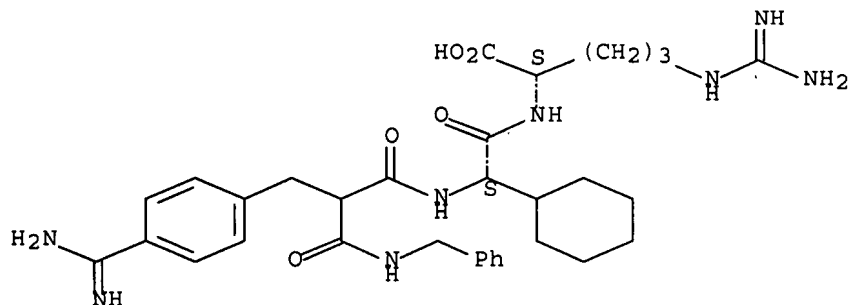


RN 356544-68-8 CAPLUS  
CN L-Arginine, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-(phenylmethyl)-  
beta-alanyl-(2S)-2-cyclohexylglycyl-, trifluoroacetate (9CI) (CA INDEX  
NAME)

CM 1

CRN 356544-67-7  
CMF C32 H44 N8 O5

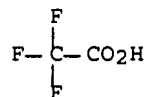
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 356544-74-6 CAPLUS

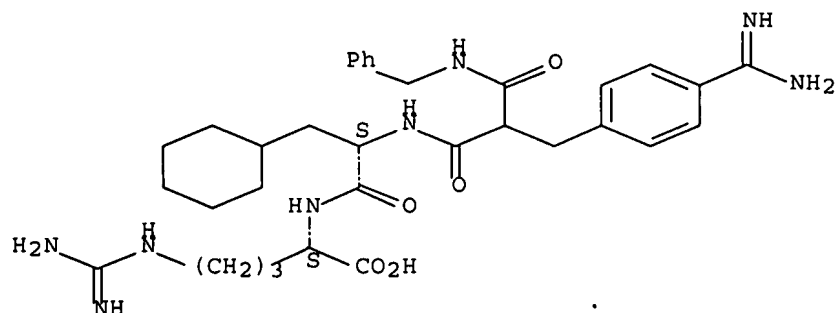
CN L-Arginine, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-(phenylmethyl)-  
β-alanyl-3-cyclohexyl-L-alanyl-, trifluoroacetate (9CI) (CA INDEX  
NAME)

CM 1

CRN 356544-73-5

CMF C33 H46 N8 O5

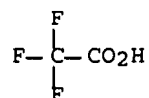
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 356544-80-4 CAPLUS

CN Cyclohexanebutanamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-

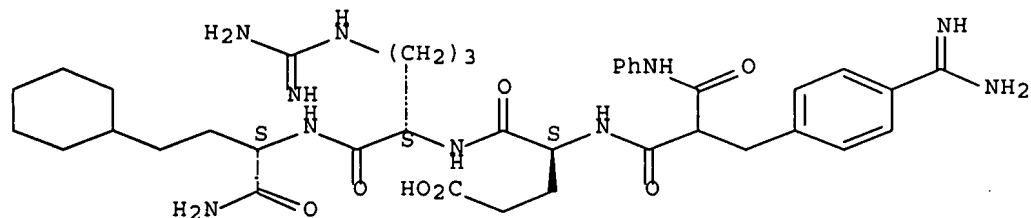
phenyl-β-alanyl-L-α-glutamyl-L-arginyl-α-amino-,  
(αS)-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 356544-79-1

CMF C38 H54 N10 O7

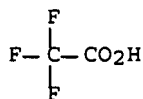
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 356545-29-4 CAPLUS

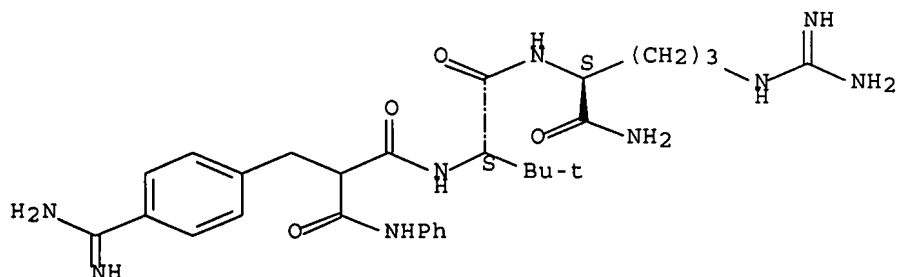
CN L-Argininamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-phenyl-β-alanyl-3-methyl-L-valyl-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 356545-28-3

CMF C29 H41 N9 O4

Absolute stereochemistry.

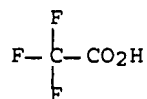




CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 356545-35-2 CAPLUS

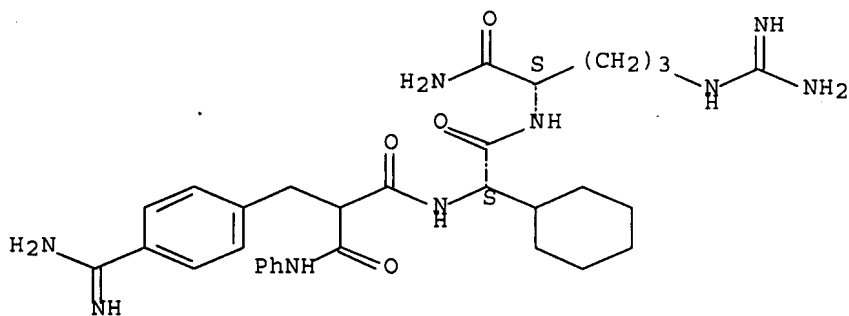
CN L-Argininamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-phenyl-β-alanyl-(2S)-2-cyclohexylglycyl-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 356545-34-1

CMF C31 H43 N9 O4

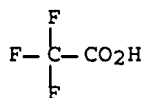
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



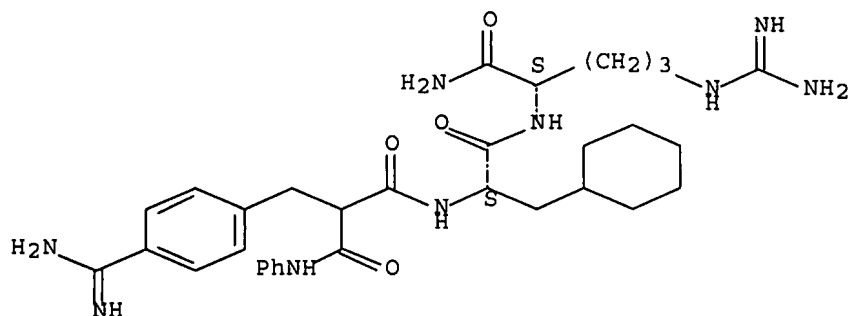
RN 356545-43-2 CAPLUS  
 CN L-Argininamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-phenyl-  
 β-alanyl-3-cyclohexyl-L-alanyl-, trifluoroacetate (9CI) (CA INDEX  
 NAME)

CM 1

CRN 356545-42-1

CMF C32 H45 N9 O4

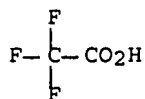
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



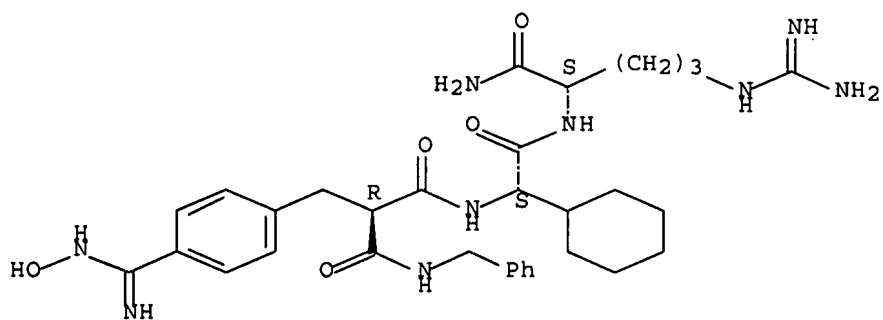
RN 356545-45-4 CAPLUS  
 CN L-Argininamide, (2R)-2-[[4-[(hydroxyamino)iminomethyl]phenyl]methyl]-3-oxo-  
 N-(phenylmethyl)-β-alanyl-(2S)-2-cyclohexylglycyl-, trifluoroacetate  
 (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 356545-44-3

CMF C32 H45 N9 O5

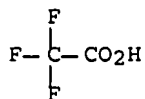
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 356545-47-6 CAPLUS

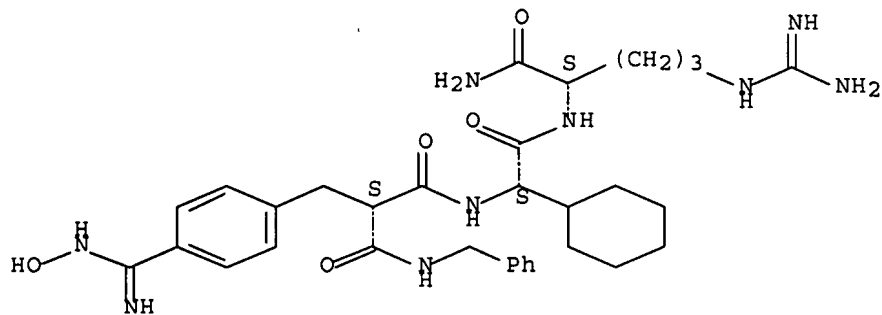
CN L-Argininamide, (2S)-2-[[4-[(hydroxyamino)iminomethyl]phenyl]methyl]-3-oxo-N-(phenylmethyl)-β-alanyl-(2S)-2-cyclohexylglycyl-, trifluoroacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 356545-46-5

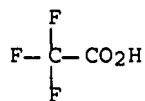
CMF C32 H45 N9 O5

Absolute stereochemistry.



CM 2

CRN 76-05-1  
CMF C2 H F3 O2

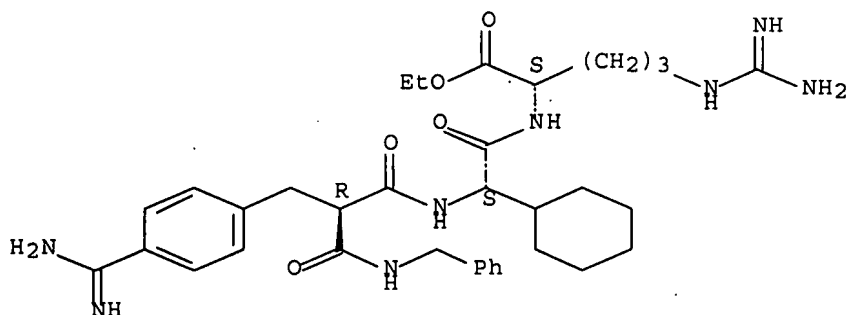


RN 356545-53-4 CAPLUS  
CN L-Arginine, (2R)-2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-(phenylmethyl)-β-alanyl-(2S)-2-cyclohexylglycyl-, ethyl ester, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

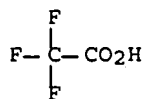
CRN 356545-52-3  
CMF C34 H48 N8 O5

Absolute stereochemistry.



CM 2

CRN 76-05-1  
CMF C2 H F3 O2



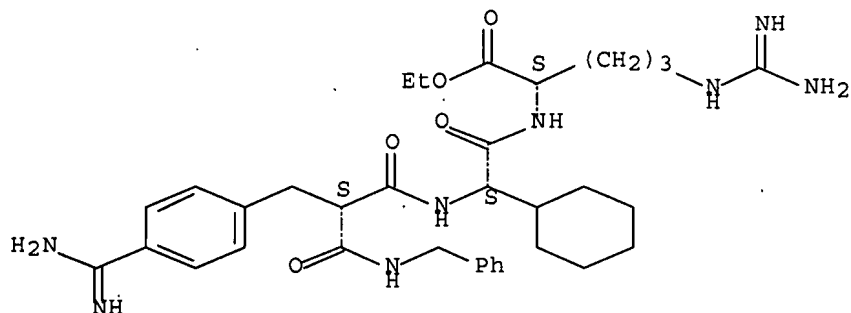
RN 356545-55-6 CAPLUS  
CN L-Arginine, (2S)-2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-(phenylmethyl)-β-alanyl-(2S)-2-cyclohexylglycyl-, ethyl ester, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 356545-54-5

CMF C34 H48 N8 O5

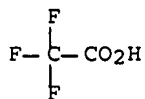
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 356545-60-3 CAPLUS

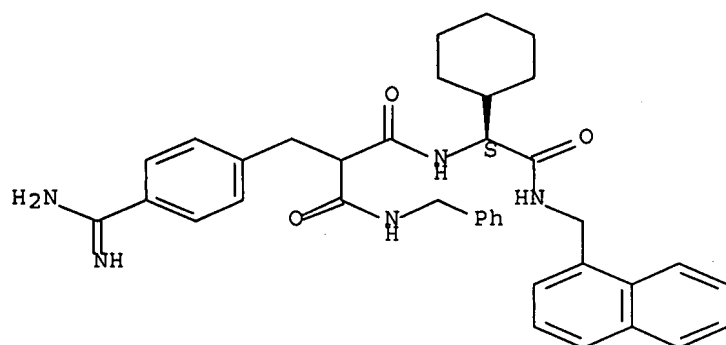
CN Propanediamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N-[(1S)-1-cyclohexyl-2-[(1-naphthalenylmethyl)amino]-2-oxoethyl]-N'-(phenylmethyl)-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 356545-59-0

CMF C37 H41 N5 O3

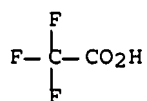
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 356545-66-9 CAPLUS

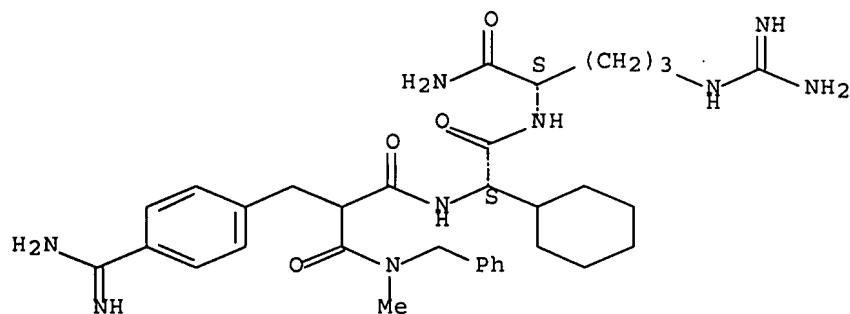
CN L-Argininamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N-methyl-3-oxo-N-(phenylmethyl)-β-alanyl-(2S)-2-cyclohexylglycyl-, trifluoroacetate  
(9CI) (CA INDEX NAME)

CM 1

CRN 356545-65-8

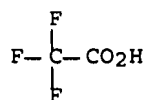
CMF C33 H47 N9 O4

Absolute stereochemistry.



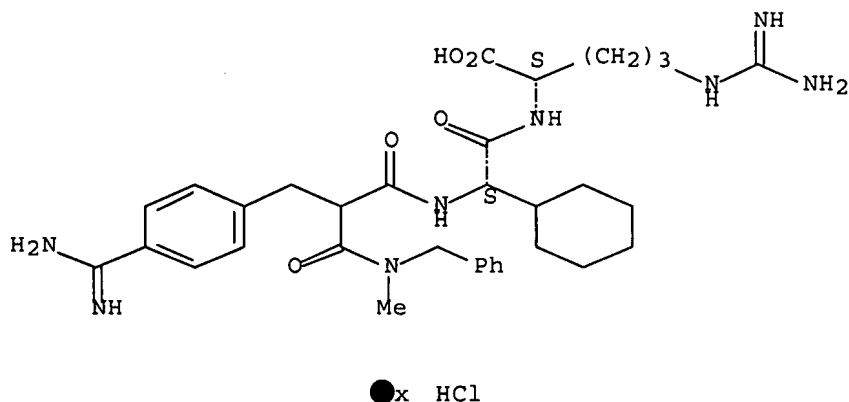
CM 2

CRN 76-05-1  
CMF C2 H F3 O2



RN 356545-67-0 CAPLUS  
CN L-Arginine, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N-methyl-3-oxo-N-(phenylmethyl)-β-alanyl-(2S)-2-cyclohexylglycyl-, hydrochloride (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.

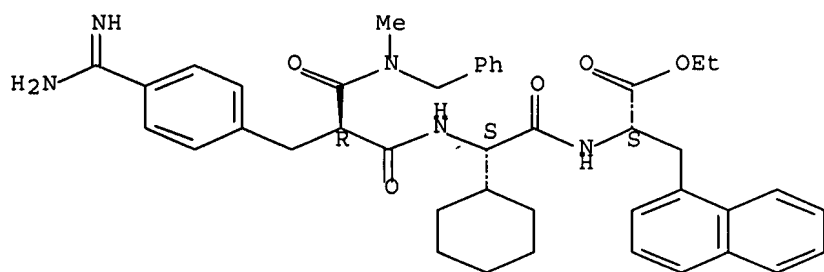


RN 356545-69-2 CAPLUS  
CN L-Alanine, (2R)-2-[[4-(aminoiminomethyl)phenyl]methyl]-N-methyl-3-oxo-N-(phenylmethyl)-β-alanyl-(2S)-2-cyclohexylglycyl-3-(1-naphthalenyl)-, ethyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 356545-68-1  
CMF C42 H49 N5 O5

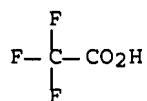
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 356545-71-6 CAPLUS

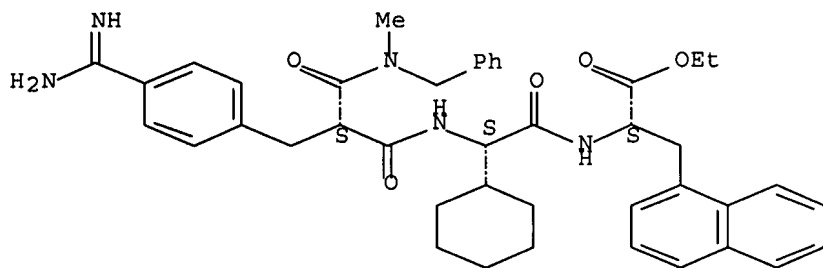
CN L-Alanine, (2S)-2-[[4-(aminoiminomethyl)phenyl]methyl]-N-methyl-3-oxo-N-(phenylmethyl)-β-alanyl-(2S)-2-cyclohexylglycyl-3-(1-naphthalenyl)-, ethyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 356545-70-5

CMF C42 H49 N5 O5

Absolute stereochemistry.

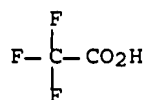


CM 2

CRN 76-05-1

CMF C2 H F3 O2





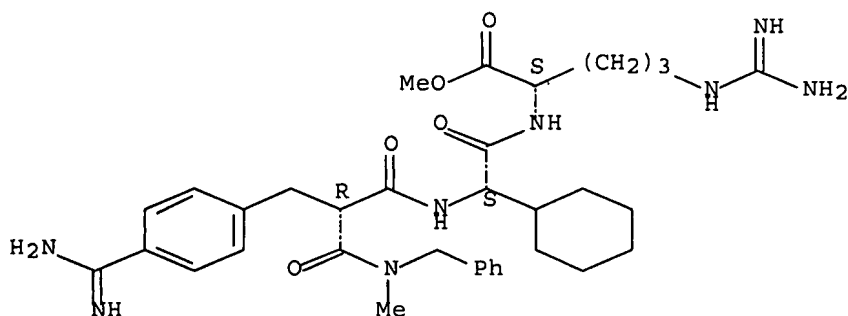
RN 356545-73-8 CAPLUS  
 CN L-Arginine, (2R)-2-[[4-(aminoiminomethyl)phenyl]methyl]-N-methyl-3-oxo-N-(phenylmethyl)-β-alanyl-(2S)-2-cyclohexylglycyl-, methyl ester, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 356545-72-7

CMF C34 H48 N8 O5

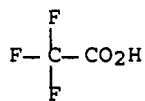
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2

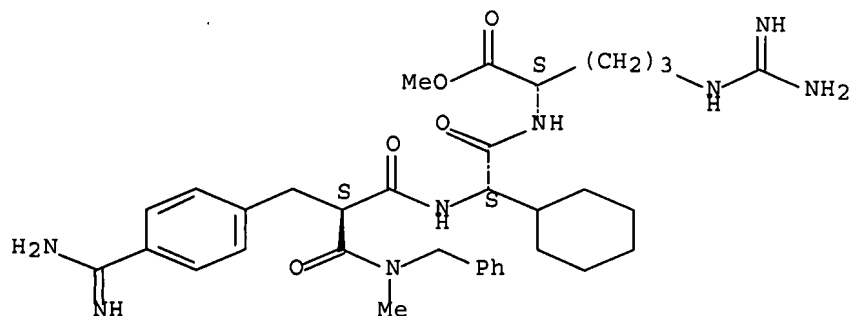


RN 356545-75-0 CAPLUS  
 CN L-Arginine, (2S)-2-[[4-(aminoiminomethyl)phenyl]methyl]-N-methyl-3-oxo-N-(phenylmethyl)-β-alanyl-(2S)-2-cyclohexylglycyl-, methyl ester, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

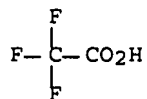
CRN 356545-74-9  
CMF C34 H48 N8 O5

Absolute stereochemistry.



CM 2

CRN 76-05-1  
CMF C2 H F3 O2

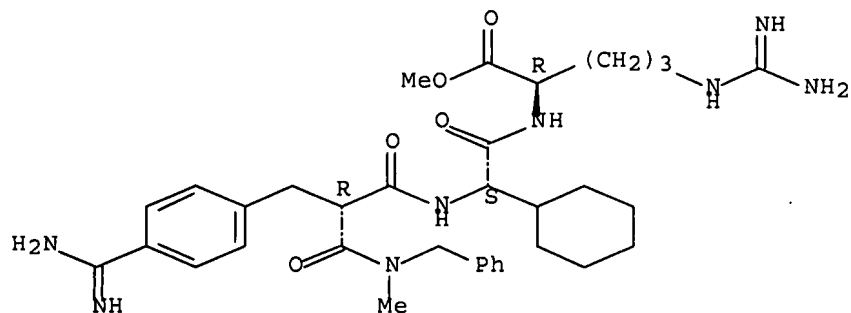


RN 356545-77-2 CAPLUS  
CN D-Arginine, (2R)-2-[[4-(aminoiminomethyl)phenyl]methyl]-N-methyl-3-oxo-N-(phenylmethyl)-β-alanyl-(2S)-2-cyclohexylglycyl-, methyl ester, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 356545-76-1  
CMF C34 H48 N8 O5

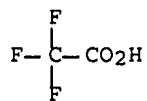
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 356545-79-4 CAPLUS

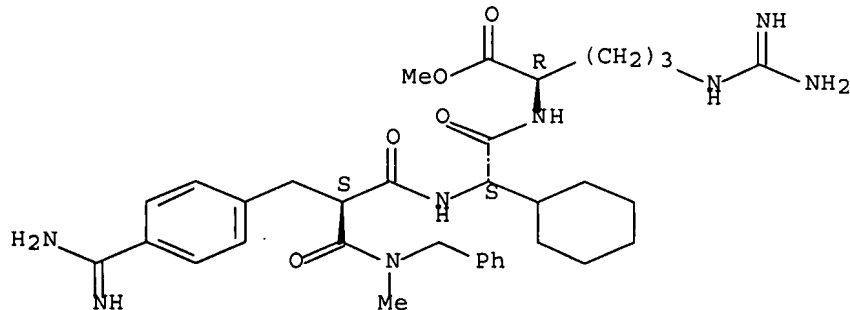
CN D-Arginine, (2S)-2-[[4-(aminoiminomethyl)phenyl]methyl]-N-methyl-3-oxo-N-(phenylmethyl)-β-alanyl-(2S)-2-cyclohexylglycyl-, methyl ester, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 356545-78-3

CMF C34 H48 N8 O5

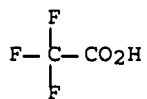
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



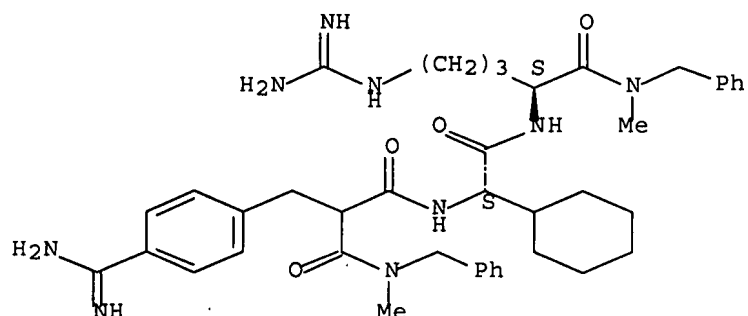
RN 356545-81-8 CAPLUS  
 CN L-Argininamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N-methyl-3-oxo-N-(phenylmethyl)-β-alanyl-(2S)-2-cyclohexylglycyl-N-methyl-N-(phenylmethyl)-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 356545-80-7

CMF C41 H55 N9 O4

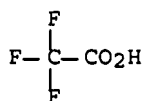
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



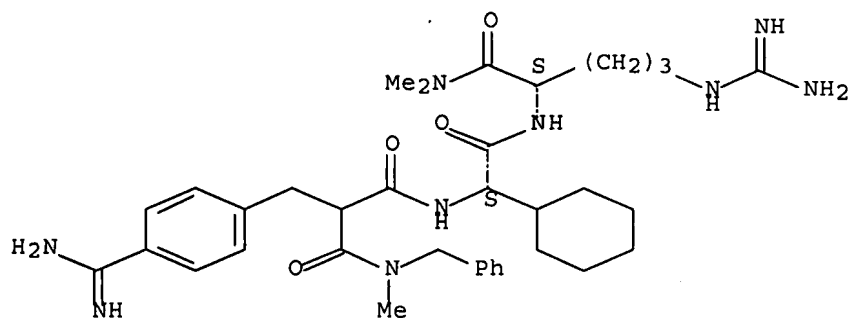
RN 356545-83-0 CAPLUS  
 CN L-Argininamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N-methyl-3-oxo-N-(phenylmethyl)-β-alanyl-(2S)-2-cyclohexylglycyl-N,N-dimethyl-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 356545-82-9

CMF C35 H51 N9 O4

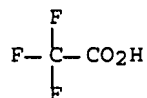
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 356545-85-2 CAPLUS

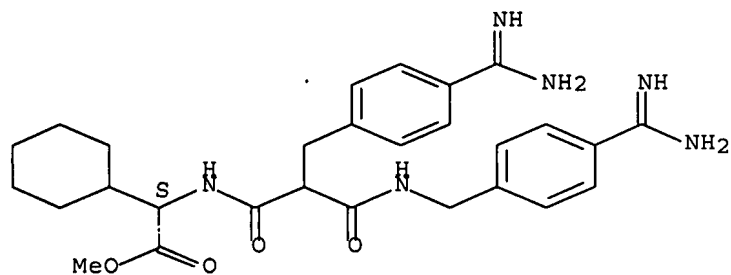
CN Cyclohexaneacetic acid,  $\alpha$ -[[2-[[4-(aminoiminomethyl)phenyl]methyl]-3-[[[4-(aminoiminomethyl)phenyl]methyl]amino]-1,3-dioxopropyl]amino]-, methyl ester, ( $\alpha$ S)-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 356545-84-1

CMF C28 H36 N6 O4

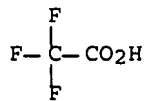
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



IT 280554-59-8P 280554-60-1P 280554-61-2P

356545-90-9P 356545-91-0P 356545-92-1P

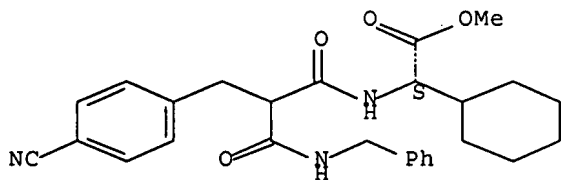
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of malonic acid amide derivs. as inhibitors of blood clotting factor Xa)

RN 280554-59-8 CAPLUS

CN Cyclohexaneacetic acid,  $\alpha$ -[[2-[(4-cyanophenyl)methyl]-1,3-dioxo-3-[(phenylmethyl)amino]propyl]amino]-, methyl ester, ( $\alpha$ S)- (CA INDEX NAME)

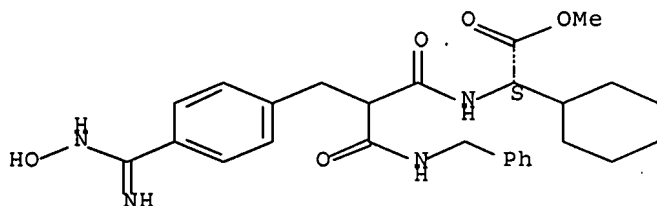
Absolute stereochemistry.



RN 280554-60-1 CAPLUS

CN Cyclohexaneacetic acid,  $\alpha$ -[[2-[[4-[(hydroxyamino)iminomethyl]phenyl]methyl]-1,3-dioxo-3-[(phenylmethyl)amino]propyl]amino]-, methyl ester, ( $\alpha$ S)- (CA INDEX NAME)

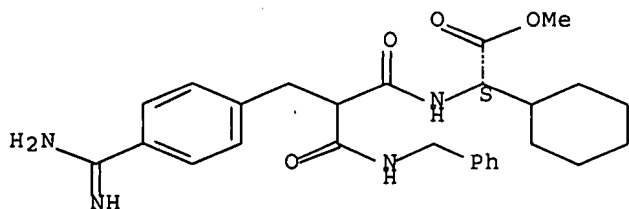
Absolute stereochemistry.



RN 280554-61-2 CAPLUS

CN Cyclohexaneacetic acid,  $\alpha$ -[[2-[[4-(aminoiminomethyl)phenyl]methyl]-1,3-dioxo-3-[(phenylmethyl)amino]propyl]amino]-, methyl ester, ( $\alpha$ S)- (CA INDEX NAME)

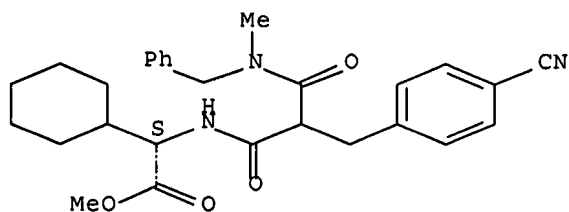
Absolute stereochemistry.



RN 356545-90-9 CAPLUS

CN Cyclohexaneacetic acid,  $\alpha$ -[[2-[[4-(4-cyanophenyl)methyl]-3-[methyl(phenylmethyl)amino]-1,3-dioxopropyl]amino]-, methyl ester, ( $\alpha$ S)- (CA INDEX NAME)

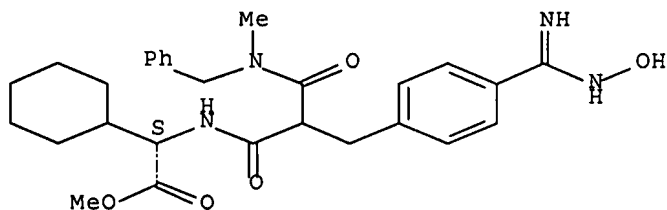
Absolute stereochemistry.



RN 356545-91-0 CAPLUS

CN Cyclohexaneacetic acid,  $\alpha$ -[[2-[[4-[(hydroxyamino)iminomethyl]phenyl]methyl]-3-[methyl(phenylmethyl)amino]-1,3-dioxopropyl]amino]-, methyl ester, ( $\alpha$ S)- (9CI) (CA INDEX NAME)

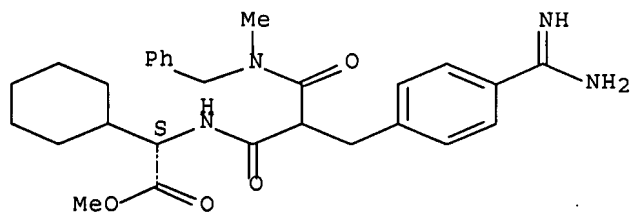
Absolute stereochemistry.



RN 356545-92-1 CAPLUS

CN Cyclohexaneacetic acid,  $\alpha$ -[[2-[[4-(aminoiminomethyl)phenyl]methyl]-3-[methyl(phenylmethyl)amino]-1,3-dioxopropyl]amino]-, methyl ester, ( $\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 10 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:457054 CAPLUS Full-text

DOCUMENT NUMBER: 135:210602

TITLE: Versatile synthesis of malonamic acid derivatives from a  $\beta$ -ketothioester

AUTHOR(S): Lopez-Alvarado, P.; Avendano, C.; Carlos Menendez, J.

CORPORATE SOURCE: Facultad de Farmacia, Departamento de Quimica Organica y Farmaceutica, Universidad Complutense, Madrid, 28040, Spain

SOURCE: Tetrahedron Letters (2001), 42(27), 4479-4482

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 135:210602

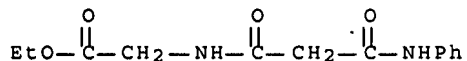
AB An efficient synthetic route is described that allows the preparation under mild conditions of several types of malonamic acid derivs. The S-tert-Bu acetothioacetate monoanion reacted with aryl or alkyl isocyanates to give  $\beta$ -amidothioesters in one step and 73-87% yield, after spontaneous deacetylation of tricarbonyl intermediates. E.g., S-tert-Bu 3-oxothiobutanoate was reacted with cyclohexyl isocyanate to give S-tert-Bu cyclohexylcarbamoylthioacetate in 87% yield. Treatment of these thioesters with several aliphatic or aromatic alcs. and amines at room temperature in THF or DME and in the presence of silver trifluoroacetate provided, resp., the corresponding malonamic acid esters and malonamides in 80-100% yield.

IT 339274-38-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 339274-38-3 CAPLUS

CN Glycine, 3-oxo-N-phenyl- $\beta$ -alanyl-, ethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 11 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

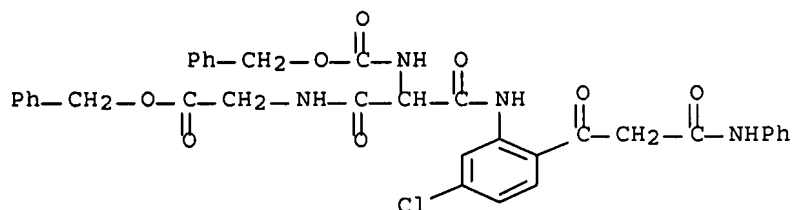
ACCESSION NUMBER: 2001:278994 CAPLUS Full-text

DOCUMENT NUMBER: 135:107312

TITLE: Efficient synthesis of novel benzo-[e]-[1,4]-diazepine



derivatives  
 AUTHOR(S): Messeri, T.; Pentassuglia, G.; Di Fabio, R.  
 CORPORATE SOURCE: Medicines Research Center, GlaxoWellcome S.p.A.,  
 Verona, I-37135, Italy  
 SOURCE: Tetrahedron Letters (2001), 42(18), 3227-3230  
 CODEN: TELEAY; ISSN: 0040-4039  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 135:107312  
 AB Following two efficient synthetic routes, a novel series of (2Z)-(8-chloro-1,2,3,4-tetrahydro-2-oxo-5H-1,4-benzodiazepin-5-ylidene)-N-phenylacetamide derivs. (bearing an unusual Z exo-methylencarbamoyl side chain at the C-5 position) were prepared to identify new antagonists of the glycine binding site associated with NMDA receptor. Pharmacol. test data were not reported.  
 IT 350238-05-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of (2Z)-(8-chloro-1,2,3,4-tetrahydro-2-oxo-5H-1,4-benzodiazepin-5-ylidene)-N-phenylacetamide derivs.)  
 RN 350238-05-0 CAPLUS  
 CN Glycine, 3-[5-chloro-2-[1,3-dioxo-3-(phenylamino)propyl]phenyl]amino]-3-oxo-N-[(phenylmethoxy)carbonyl]alanyl-, phenylmethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 12 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2001:133356 CAPLUS Full-text  
 DOCUMENT NUMBER: 134:352962  
 TITLE: A general, high-yielding synthesis of  $\beta$ -diamides and  $\beta$ -amido esters  
 AUTHOR(S): Lopez-Alvarado, Pilar; Avendano, Carmen; Menendez, J. Carlos  
 CORPORATE SOURCE: Departamento de Quimica Organica y Farmaceutica, Facultad de Farmacia, Universidad Complutense, Madrid, 28040, Spain  
 SOURCE: Proceedings of ECSOC-3, [and] Proceedings of ECSOC-4, Sept. 1-30, 1999 and 2000 (2000), Meeting Date 1999-2000, 751-754. Editor(s): Pombo-Villar, Esteban. Molecular Diversity Preservation International: Basel, Switz.  
 CODEN: 69AXZT  
 DOCUMENT TYPE: Conference; (computer optical disk)  
 LANGUAGE: English

OTHER SOURCE(S): CASREACT 134:352962

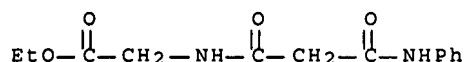
AB An electronic conference report on a new and efficient synthetic route to malonamides and malonamic acid esters. S-tert-Bu acetothioacetate monoanion reacted with aryl or alkyl isocyanates to give tricarbonyl compds., which spontaneously deacetylated to the corresponding  $\beta$ -amido thioesters. Treatment of the latter with aliphatic or aromatic amines or alcs. at room temperature in the presence of silver trifluoroacetate provided malonamides or malonamic acid esters, resp., in excellent overall yields.

IT 339274-38-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of  $\beta$ -diamides and  $\beta$ -amido esters)

RN 339274-38-3 CAPLUS

CN Glycine, 3-oxo-N-phenyl- $\beta$ -alanyl-, ethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 13 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:653161 CAPLUS Full-text

DOCUMENT NUMBER: 134:5141

TITLE: Replacement of glycine with dicarbonyl and related moieties in analogs of the C-terminal pentapeptide of cholecystokinin: CCK2 agonists displaying a novel binding mode

AUTHOR(S): Bellier, Bruno; Million, Marie-Emmanuelle; DaNascimento, Sophie; Meudal, Herve; Kellou, Safia; Maigret, Bernard; Garbay, Christiane

CORPORATE SOURCE: Departement de Pharmacochimie Moleculaire et Structurale, U266 INSERM UMR 8600 CNRS, UFR des Sciences Pharmaceutiques et Biologiques, Paris, 75270, Fr.

SOURCE: Journal of Medicinal Chemistry (2000), 43(20), 3614-3623

CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 134:5141

AB Recent advances in the field of cholecystokinin have indicated the possible occurrence of multiple affinity states of the CCK2 receptor. Besides, numerous pharmacol. expts. performed "in vitro" and "in vivo" support the eventuality of different pharmacol. profiles associated to CCK2 ligands. Indeed, some agonists are essentially anxiogenic and ineffective in memory tests, whereas others are not anxiogenic and appear as able to reinforce memory. The reference compound for the latter profile is the CCK-8 analog BC 264 (Boc-Tyr(SO<sub>3</sub>H)-gNle-mGly-Trp-(NMe)Nle-Asp-Phe-NH<sub>2</sub>). However, although tetrapeptide ligands based on CCK-4 (Trp-Met-Asp-Phe-NH<sub>2</sub>) are known to possess sufficient structural features for CCK2 recognition, none shares the properties of BC 264. Hence we have developed new short peptidic or pseudo-peptidic derivs. containing the C-terminal tetrapeptide of BC 264. Our results indicate that some compds. characterized by the presence of two carbonyl groups at the N-terminus, as in (HO<sub>2</sub>C-CH<sub>2</sub>-CONH-Trp-(NMe)Nle-Asp-Phe-NH<sub>2</sub>), are likely to show a

BC 264-like profile, bind to the CCK2 receptor in a specific way, and display remarkable affinities (0.28 nM on guinea-pig cortex membrane preps.). This original binding mode is discussed and further enlightened by NMR and mol. modeling studies.

IT 203563-93-3P

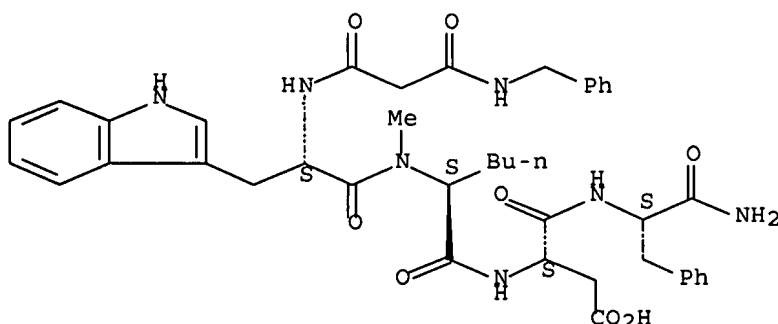
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of pseudopeptides as CCK2 agonists by replacement of glycine with dicarbonyl in C-terminal pentapeptides)

RN 203563-93-3 CAPLUS

CN L-Phenylalaninamide, 3-oxo-N-(phenylmethyl)- $\beta$ -alanyl-L-tryptophyl-N-methyl-L-norleucyl-L- $\alpha$ -aspartyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 14 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:456736 CAPLUS Full-text

DOCUMENT NUMBER: 133:89228

TITLE: Novel malonic acid derivatives, processes for their preparation, their use and pharmaceutical compositions containing them (inhibition of factor Xa activity)

INVENTOR(S): Defossa, Elisabeth; Heinelt, Uwe; Klingler, Otmar; Zoller, Gerhard; Matter, Hans; Al-Obeidi, Fahad A.; Walser, Armin; Wildgoose, Peter

PATENT ASSIGNEE(S): Aventis Pharma Deutschland G.m.b.H., Germany

SOURCE: Eur. Pat. Appl., 76 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| EP 1016663  | A1   | 20000705 | EP 1999-100002  | 19990102 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO |      |          |                 |          |
| CA 2358578  | A1   | 20000713 | CA 1999-2358578 | 19991223 |
| WO 2000040571   | A1   | 20000713 | WO 1999-EP10340 | 19991223 |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,                        |      |          |                 |          |

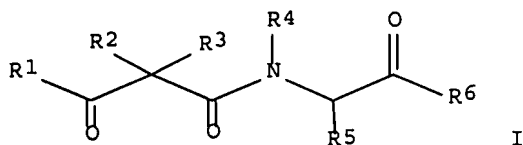
CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,  
 IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,  
 MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,  
 SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW  
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,  
 DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,  
 CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG.

|  |    |          |                   |          |
|--|----|----------|-------------------|----------|
| BR 9916732   | A  | 20010925 | BR 1999-16732     | 19991223 |
| EP 1140878   | A1 | 20011010 | EP 1999-964667    | 19991223 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,<br>IE, SI, LT, LV, FI, RO |    |          |                   |          |
| TR 200101903   | T2 | 20011121 | TR 2001-200101903 | 19991223 |
| HU 200105437   | A2 | 20020529 | HU 2001-5437      | 19991223 |
| JP 2002534420  | T  | 20021015 | JP 2000-592279    | 19991223 |
| US 6395737   | B1 | 20020528 | US 1999-473053    | 19991228 |
| ZA 2001004770  | A  | 20020612 | ZA 2001-4770      | 20010612 |
| NO 2001002983  | A  | 20010615 | NO 2001-2983      | 20010615 |
| IN 2001CN00908   | A  | 20050304 | IN 2001-CN908     | 20010628 |

PRIORITY APPLN. INFO.:

|                 |   |          |
|-----------------|---|----------|
| EP 1999-100002  | A | 19990102 |
| EP 1999-119537  | A | 19991001 |
| WO 1999-EP10340 | W | 19991223 |

OTHER SOURCE(S): MARPAT 133:89228  
 GI



AB The present invention relates to the preparation of new compds. for the inhibition of blood clotting proteins, and more particularly, to malonic acid derivs., I (R1 = organoamino, organoalkoxy, etc.; R2 = H, C1-4 alkyl; R3 = (un)substituted C6-10-aryl-C1-4-alkyl; R4 = H, C1-4-alkyl, C3-7-cycloalkyl, C3-7-cycloalkyl-C1-4-alkyl, C6-10-aryl-C1-4-alkyl; R5 = H, C1-10-alkyl, C3-7-cycloalkyl, C3-7-cycloalkyl-C1-4-alkyl, C6-10-aryl, C6-10-aryl-C1-4-alkyl, etc.; R4R5 = cyclic hydrocarbyl; R6 = organoalkoxy, organoamino, etc.). Thus, 2-(R,S)-(4-carbamimidoylbenzyl)-N-[(S)-cyclohexyl(piperidin-4-ylcarbamoyl)methyl]-N',N'-dimethylmalonamide acetic acid salt was prepared in several steps starting from 2,2-dimethyl[1,3]dioxane-4,6-dione and 4-formylbenzonitrile. I are inhibitors (activity given) of the blood clotting enzyme factor Xa. The invention also relates to processes for the preparation of I, to methods of inhibiting factor Xa activity and of inhibiting blood clotting, to the use of I in the treatment and prophylaxis of diseases, which can be treated or prevented by the inhibition of factor Xa activity such as thromboembolic diseases, and to the use of the compds. I in the preparation of medicaments to be applied in such diseases. The invention further relates to compns. containing I in admixt. or otherwise in association with an inert carrier, in particular pharmaceutical compns. containing a compound of formula I together with pharmaceutically acceptable carrier substances and auxiliary substances.

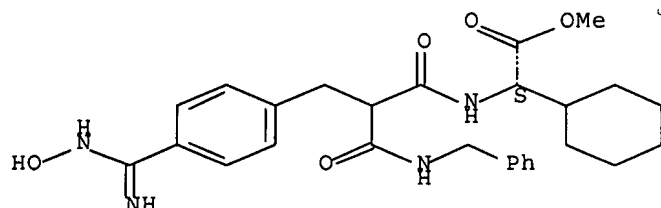
IT 280554-60-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and catalytic hydrogenation of)

RN 280554-60-1 CAPLUS

CN Cyclohexaneacetic acid,  $\alpha$ -[[2-[[4-[(hydroxyamino)iminomethyl]phenyl]methyl]-1,3-dioxo-3-[(phenylmethyl)amino]propyl]amino]-, methyl ester, ( $\alpha$ S)- (CA INDEX NAME)

Absolute stereochemistry.



IT 280553-84-6P

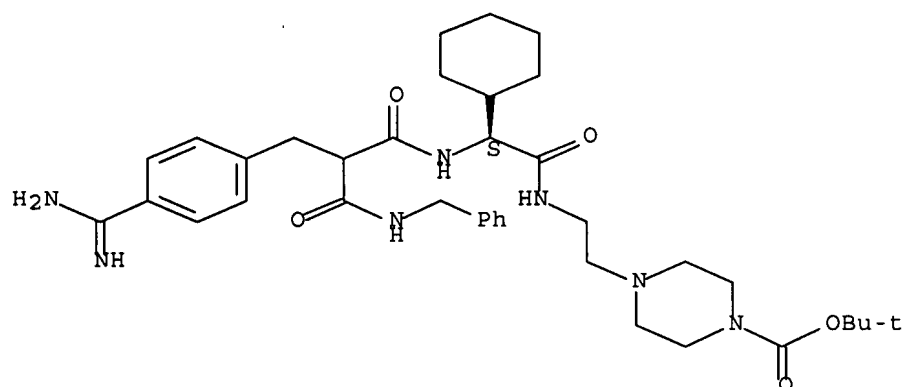
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction with benzylcarbamoyl carbamimidoylphenylpropionyl amino cyclohexylacetic acid salt)

RN 280553-84-6 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[2-[[[(2S)-[[2-[[4-(aminoiminomethyl)phenyl]methyl]-1,3-dioxo-3-[(phenylmethyl)amino]propyl]amino]cyclohexylacetyl]amino]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 280554-61-2P

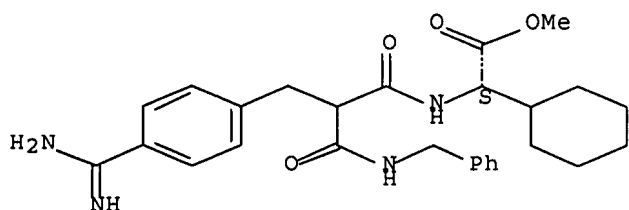
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction with hydrochloric acid)

RN 280554-61-2 CAPLUS

CN Cyclohexaneacetic acid,  $\alpha$ -[[2-[[4-(aminoiminomethyl)phenyl]methyl]-1,3-dioxo-3-[(phenylmethyl)amino]propyl]amino]-, methyl ester, ( $\alpha$ S)- (CA INDEX NAME)

Absolute stereochemistry.



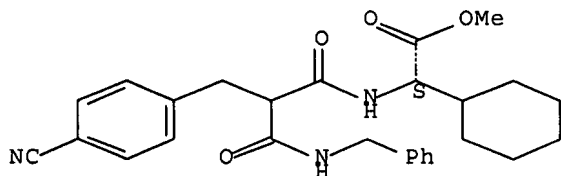
IT 280554-59-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and reaction with hydroxylamine)

RN 280554-59-8 CAPLUS

CN Cyclohexanecarboxylic acid,  $\alpha$ -[[2-[(4-cyanophenyl)methyl]-1,3-dioxo-3-[(phenylmethyl)amino]propyl]amino]-, methyl ester, ( $\alpha$ S)- (CA INDEX NAME)

Absolute stereochemistry.



IT 280553-85-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation of novel malonic acid derivs. as factor Xa inhibitors)

RN 280553-85-7 CAPLUS

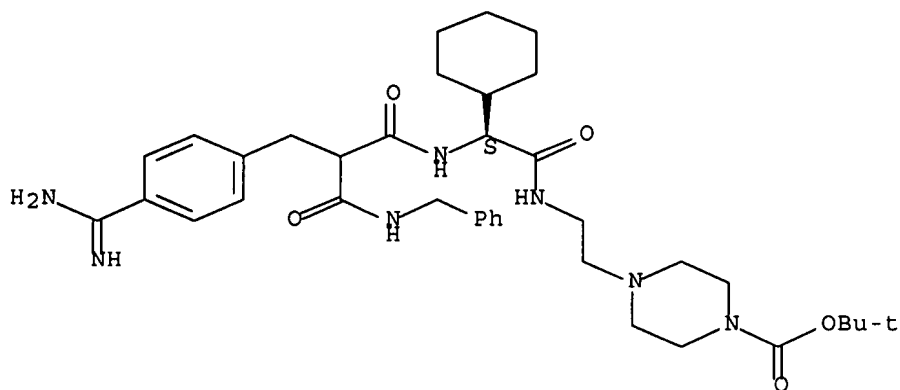
CN 1-Piperazinecarboxylic acid, 4-[2-[[[(2S)-[[2-[[4-(aminoiminomethyl)phenyl]methyl]-1,3-dioxo-3-[(phenylmethyl)amino]propyl]amino]cyclohexylacetyl]amino]ethyl]-, 1,1-dimethylethyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 280553-84-6

CMF C37 H53 N7 O5

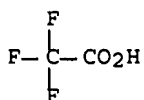
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



IT 280553-80-2P 280553-83-5P 280553-87-9P  
280553-91-5P 280553-96-0P 280554-05-4P  
280554-06-5P 280554-33-8P 280554-35-0P  
280554-37-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of novel malonic acid derivs. as factor Xa inhibitors)

RN 280553-80-2 CAPLUS

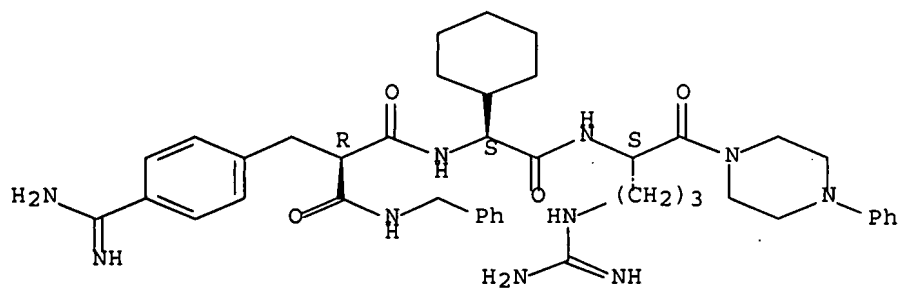
CN Glycinamide, (2R)-2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-(phenylmethyl)-β-alanyl-N-[(1S)-4-[(aminoiminomethyl)amino]-1-[(4-phenyl-1-piperazinyl)carbonyl]butyl]-2-cyclohexyl-, (2S)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 280553-79-9

CMF C42 H56 N10 O4

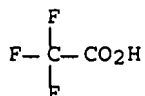
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 280553-83-5 CAPLUS

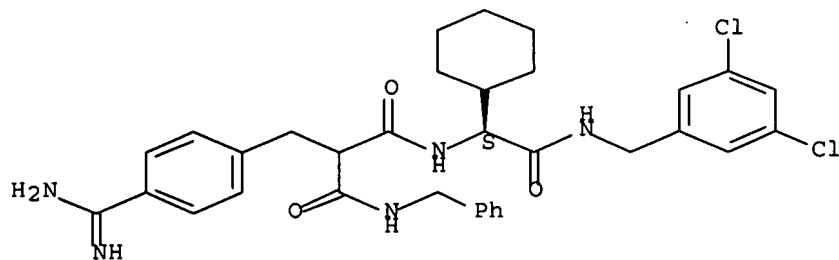
CN Propanediamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N-[(1S)-1-cyclohexyl-2-[[[(3,5-dichlorophenyl)methyl]amino]-2-oxoethyl]-N'-(phenylmethyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 280553-82-4

CMF C33 H37 Cl2 N5 O3

Absolute stereochemistry.

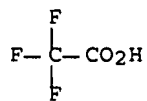


CM 2

CRN 76-05-1



CMF C2 H F3 O2



RN 280553-87-9 CAPLUS

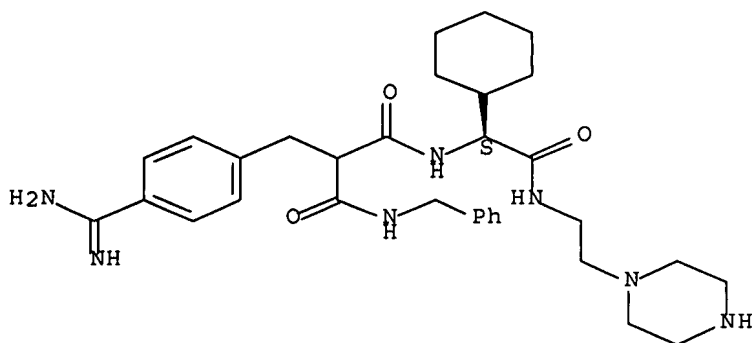
CN Propanediamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N-[(1S)-1-cyclohexyl-2-oxo-2-[[2-(1-piperazinyl)ethyl]amino]ethyl]-N'-(phenylmethyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 280553-86-8

CMF C32 H45 N7 O3

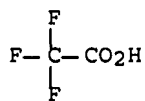
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 280553-91-5 CAPLUS

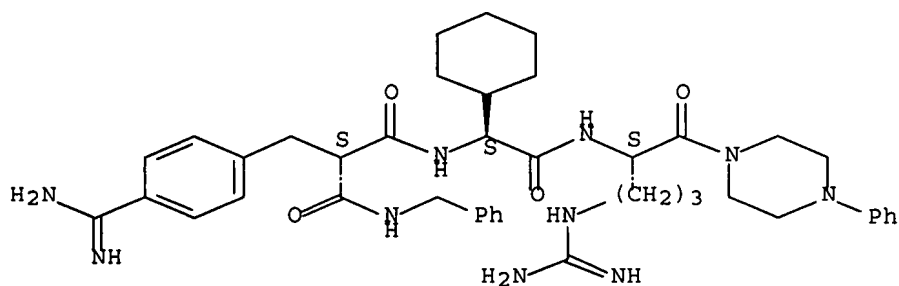
CN Glycinamide, (2S)-2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-(phenylmethyl)-β-alanyl-N-[(1S)-4-[(aminoiminomethyl)amino]-1-[(4-phenyl-1-piperazinyl)carbonyl]butyl]-2-cyclohexyl-, (2S)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 280553-90-4

CMF C42 H56 N10 O4

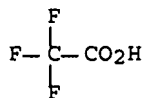
Absolute stereochemistry.



CM 2

CRN 76-05-1

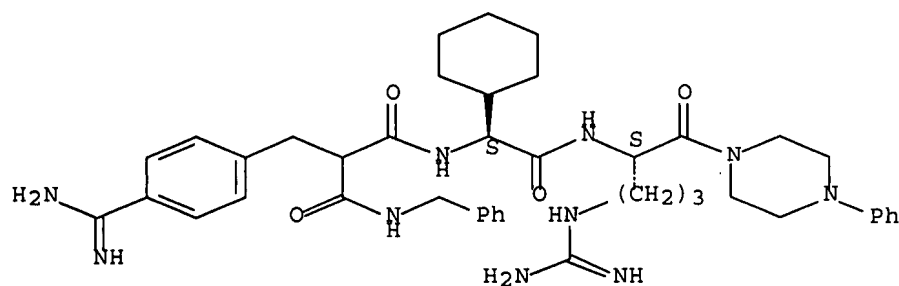
CMF C2 H F3 O2



RN 280553-96-0 CAPLUS

CN Glycinamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-3-oxo-N-(phenylmethyl)-  
β-alanyl-N-[(1S)-4-[(aminoiminomethyl)amino]-1-[(4-phenyl-1-  
piperazinyl)carbonyl]butyl]-2-cyclohexyl-, (2S)- (9CI) (CA INDEX NAME)

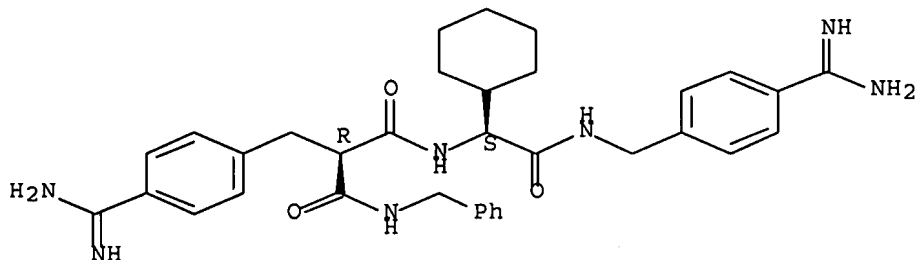
Absolute stereochemistry.



RN 280554-05-4 CAPLUS

CN Propanediamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N-[(1S)-2-[[[4-(aminoiminomethyl)phenyl]methyl]amino]-1-cyclohexyl-2-oxoethyl]-N'-(phenylmethyl)-, (2R)- (9CI) (CA INDEX NAME)

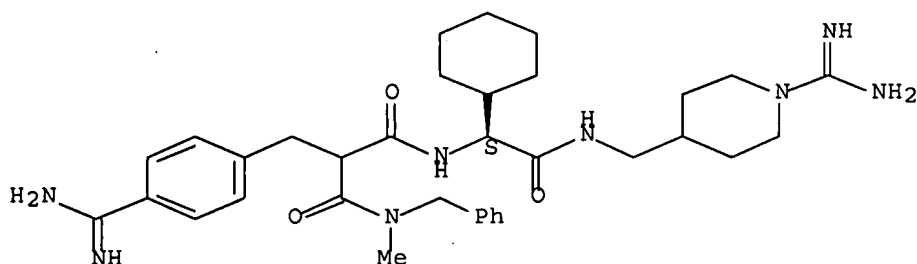
Absolute stereochemistry.



RN 280554-06-5 CAPLUS

CN Propanediamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N'-[(1S)-2-[[[1-(aminoiminomethyl)-4-piperidinyl]methyl]amino]-1-cyclohexyl-2-oxoethyl]-N-methyl-N-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 280554-33-8 CAPLUS

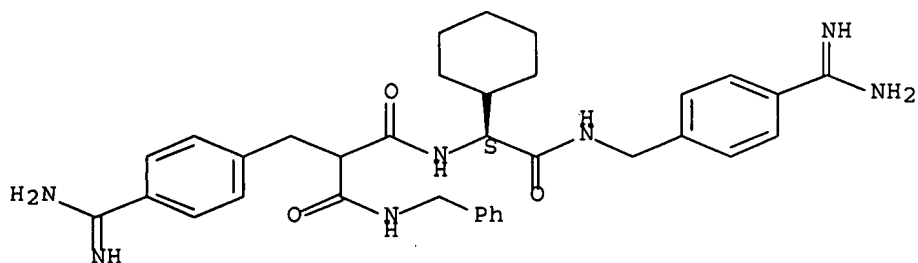
CN Propanediamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N-[(1S)-2-[[[4-(aminoiminomethyl)phenyl]methyl]amino]-1-cyclohexyl-2-oxoethyl]-N'-(phenylmethyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 280554-32-7

CMF C34 H41 N7 O3

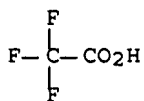
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 280554-35-0 CAPLUS

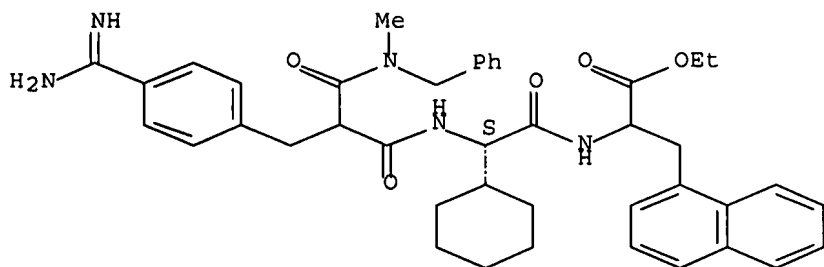
CN Alanine, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N-methyl-3-oxo-N-(phenylmethyl)-β-alanyl-(2S)-2-cyclohexylglycyl-3-(1-naphthalenyl)-, ethyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 280554-34-9

CMF C42 H49 N5 O5

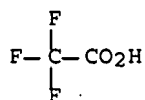
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2

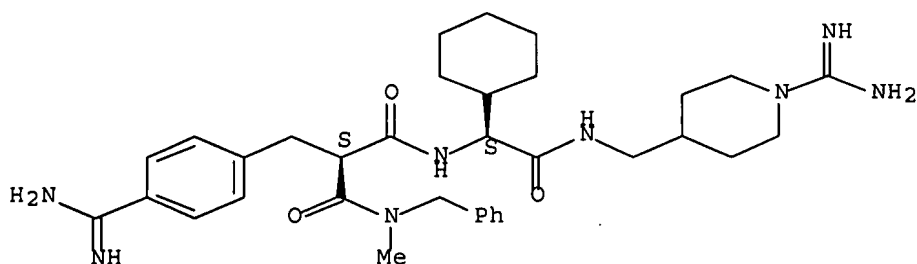


RN 280554-37-2 CAPLUS  
 CN Propanediamide, 2-[[4-(aminoiminomethyl)phenyl]methyl]-N'-[(1S)-2-[[[1-(aminoiminomethyl)-4-piperidinyl]methyl]amino]-1-cyclohexyl-2-oxoethyl]-N-methyl-N-(phenylmethyl)-, (2S)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

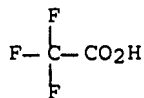
CRN 280554-36-1  
 CMF C34 H48 N8 O3

Absolute stereochemistry.



CM 2

CRN 76-05-1  
 CMF C2 H F3 O2



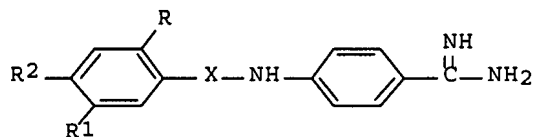
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 15 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2000:421088 CAPLUS Full-text  
 DOCUMENT NUMBER: 133:58615  
 TITLE: Substituted aryl and heteroaryl derivatives of benzamidine and their use as antithrombics

INVENTOR(S): Priepke, Henning; Kauffmann, Iris; Hael, Norbert;  
 Ries, Uwe; Nar, Herbert; Stassen, Jean Marie; Wienen,  
 Wolfgang  
 PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma Kg, Germany  
 SOURCE: PCT Int. Appl., 178 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE       |
|---|------|----------|------------------|------------|
| WO 2000035859   | A1   | 20000622 | WO 1999-EP9921   | 19991213   |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW |      |          |                  |            |
| RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  |      |          |                  |            |
| DE 19858029   | A1   | 20000621 | DE 1998-19858029 | 19981216   |
| DE 19948101   | A1   | 20010412 | DE 1999-19948101 | 19991007   |
| CA 2353151  | A1   | 20000622 | CA 1999-2353151  | 19991213   |
| EP 1140802  | A1   | 20011010 | EP 1999-965464   | 19991213   |
| EP 1140802  | B1   | 20040317 |                  |            |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO   |      |          |                  |            |
| JP 2002532460   | T    | 20021002 | JP 2000-588121   | 19991213   |
| JP 3827530  | B2   | 20060927 |                  |            |
| AT 261934   | T    | 20040415 | AT 1999-965464   | 19991213   |
| US 6479524  | B1   | 20021112 | US 2001-868428   | 20011018   |
| PRIORITY APPLN. INFO.:  |      |          |                  |            |
|   |      |          | DE 1998-19858029 | A 19981216 |
|   |      |          | DE 1999-19948101 | A 19991007 |
|   |      |          | WO 1999-EP9921   | W 19991213 |

OTHER SOURCE(S): MARPAT 133:58615  
 GI



AB Aryl and heteroaryl derivs. of benzamidine Ar-A-HCR1-X-Y, such as I [R = Me, H; R1 = CH2CO2Me, Me; R2 = 2-methylpyrrolidinocarbonyl, COCHMe2, N-methyl-N-2-pyridylcarbonyl, pyrrolidinocarbonyl, N(CO2Et)CH2CH2CO2Me, N(CHMe2)NHCH2CO2H, N(CHMe2)COCH2CO2H; X = CH2C.tplbond.C, (CH2)3] were prepared for use as antithrombics. Thus, I [R = Me, R1 = CH2CO2Me, R2 = 2-methylpyrrolidinocarbonyl, X = CH2C.tplbond.C, II] was prepared from the

propargylbenzamidine and pyrrolidinocarbonylphenyl bromide fragments. II had an ED200 in the a-PTT time of 0.23  $\mu$ M.

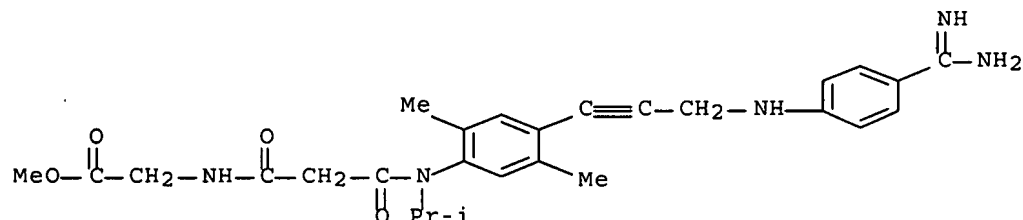
IT 276678-81-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of substituted aryl and heteroaryl derivs. of benzamidine and their use as antithrombics)

RN 276678-81-0 CAPLUS

CN Glycine, N-[4-[3-[[4-(aminoiminomethyl)phenyl]amino]-1-propynyl]-2,5-dimethylphenyl]-N-(1-methylethyl)-3-oxo- $\beta$ -alanyl-, methyl ester (9CI)  
(CA INDEX NAME)



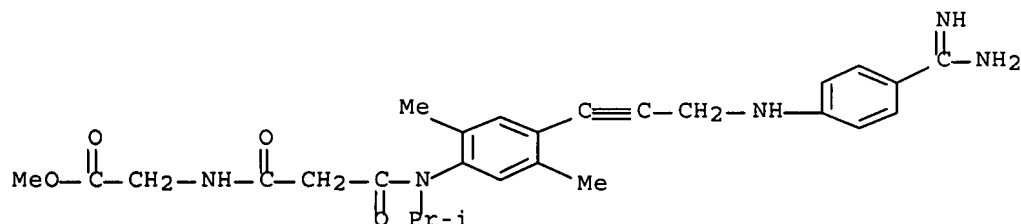
IT 276676-53-0P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of substituted aryl and heteroaryl derivs. of benzamidine and their use as antithrombics)

RN 276676-53-0 CAPLUS

CN Glycine, N-[4-[3-[[4-(aminoiminomethyl)phenyl]amino]-1-propynyl]-2,5-dimethylphenyl]-N-(1-methylethyl)-3-oxo- $\beta$ -alanyl-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

REFERENCE COUNT:

6

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 16 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:53681 CAPLUS Full-text

DOCUMENT NUMBER: 132:108302

TITLE: Preparation of CS-1 peptidomimetics and their compositions

INVENTOR(S): Arrhenius, Thomas S.; Elices, Mariano J.; Gaeta,

Federico C. A.; He, Ya-Bo; Huyghe, Bernard G.; Chen, Paul G.  
 PATENT ASSIGNEE(S): Cytel Corporation, USA  
 SOURCE: PCT Int. Appl., 266 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|---|------|----------|-----------------|------------|
| WO 2000002903   | A1   | 20000120 | WO 1998-US26605 | 19981215   |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM<br>RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG |      |          |                 |            |
| AU 9919153  | A    | 20000201 | AU 1999-19153   | 19981215   |
| PRIORITY APPLN. INFO.:  |      |          | US 1998-113689  | A 19980710 |
|   |      |          | WO 1998-US26605 | W 19981215 |

OTHER SOURCE(S): MARPAT 132:108302

AB Peptidomimetics R1CONR2CHR3CONR4CH(CONR5R6)CH2CO2H [R1 = alkyl, aminoalkyl, or a ring structure which may form at R1, between R1 and R2 or between R1 and R4; R2 = H, alkyl, phenylalkyl or R2 and R1 form the R1 ring structure group; R3 = alkyl, alkyl alc., thioalkyl, dialkyl thioether, or a ring structure; R4 = H or R4 and R1 form the R1 ring structure; R5 = H or R5 and R6 form a ring structure; R6 = benzyl, an optionally substituted 5-, 6-, or 7-membered heterocyclic ring containing 1 or 2 nitrogen atoms, a pyridobenzazepine moiety, or a group CHR7CO-AR8R9 (A = N and R7, R8, R9 = alkyl, a ring structure, etc. or A = O and R7 = alkyl, a ring structure, etc., R8 = alkyl, and R9 is absent)] were prepared as inhibitors of the binding between the VLA-4 receptor and the fibronectin CS-1 domain. Thus, N-phenylacetyl-L-Leu-Asp-Phe-D-Pro-NH2 was prepared and assayed for binding inhibition potency (313 relative to a standard compound).

IT 209601-97-8P 209602-44-8P

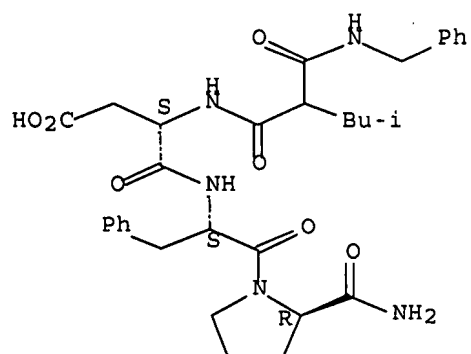
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of CS-1 peptidomimetics and their compns.)

RN 209601-97-8 CAPLUS

CN D-Prolinamide, 2-(2-methylpropyl)-3-oxo-N-(phenylmethyl)-β-alanyl-L-α-aspartyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

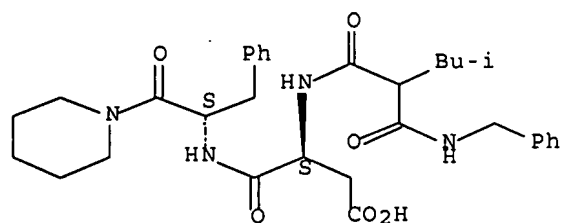




RN 209602-44-8 CAPLUS

CN L- $\alpha$ -Asparagine, 2-(2-methylpropyl)-3-oxo-N-(phenylmethyl)- $\beta$ -alanyl-N-[(1S)-2-oxo-1-(phenylmethyl)-2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 17 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:505686 CAPLUS Full-text

DOCUMENT NUMBER: 131:139496

TITLE: Fibronectin CS-1 peptidomimetics for inhibiting binding of CS-1 to VLA-4 and for treating immunoinflammatory conditions

INVENTOR(S): Arrhenius, Thomas S.; Elices, Mariano J.; Gaeta, Federico C. A.

PATENT ASSIGNEE(S): Cytel Corporation, USA

SOURCE: U.S., 81 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| US 5936065 | A    | 19990810 | US 1995-462424  | 19950605 |
| CA 2177840 | A1   | 19950615 | CA 1994-2177840 | 19941205 |
| CN 1142832 | A    | 19970212 | CN 1994-194969  | 19941205 |
| US 5688913 | A    | 19971118 | US 1995-435286  | 19950505 |
| US 6117840 | A    | 20000912 | US 1997-837154  | 19970414 |

|                        |   |          |                |             |
|------------------------|---|----------|----------------|-------------|
| US 6103870             | A | 20000815 | US 1997-923026 | 19970903    |
| PRIORITY APPLN. INFO.: |   |          | US 1993-164101 | B2 19931206 |
|                        |   |          | US 1994-349024 | B2 19941202 |
|                        |   |          | US 1995-435286 | A1 19950505 |

OTHER SOURCE(S): MARPAT 131:139496

AB Peptidomimetic compds. are disclosed that inhibit the binding between the VLA-4 and the fibronectin CS-1 compound. Pharmaceutical compns. containing a contemplated compound and methods for treating immunoinflammatory conditions using the compound are also disclosed.

IT 209601-97-8 209602-44-8

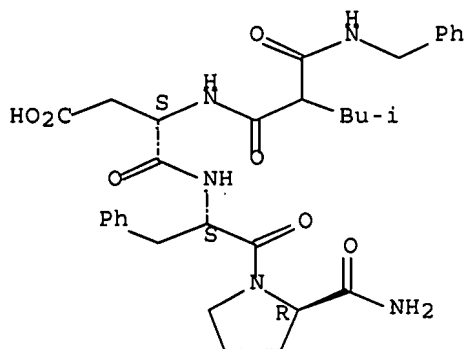
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(fibronectin CS-1 peptidomimetics for inhibiting binding of CS-1 to VLA-4 and for treating immunoinflammatory conditions)

RN 209601-97-8 CAPLUS

CN D-Prolinamide, 2-(2-methylpropyl)-3-oxo-N-(phenylmethyl)- $\beta$ -alanyl-L- $\alpha$ -aspartyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

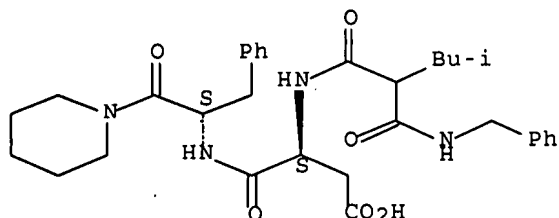
Absolute stereochemistry.



RN 209602-44-8 CAPLUS

CN L- $\alpha$ -Asparagine, 2-(2-methylpropyl)-3-oxo-N-(phenylmethyl)- $\beta$ -alanyl-N-[(1S)-2-oxo-1-(phenylmethyl)-2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



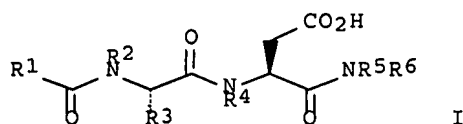
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 18 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:668012 CAPLUS Full-text  
 DOCUMENT NUMBER: 129:290438  
 TITLE: Preparation of CS-1 peptidomimetics and their compositions  
 INVENTOR(S): Arrhenius, Thomas S.; Elices, Mariano J.; Gaeta, Federico C. A.  
 PATENT ASSIGNEE(S): Cytel Corp., USA  
 SOURCE: U.S., 81 pp., Cont.-in-part of U.S. Ser. No. 349,024.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE        |
|------------------------|------|----------|-----------------|-------------|
| US 5821231             | A    | 19981013 | US 1995-461056  | 19950605    |
| CA 2177840             | A1   | 19950615 | CA 1994-2177840 | 19941205    |
| CN 1142832             | A    | 19970212 | CN 1994-194969  | 19941205    |
| US 5688913             | A    | 19971118 | US 1995-435286  | 19950505    |
| US 6117840             | A    | 20000912 | US 1997-837154  | 19970414    |
| US 6103870             | A    | 20000815 | US 1997-923026  | 19970903    |
| PRIORITY APPLN. INFO.: |      |          | US 1993-164101  | B2 19931206 |
|                        |      |          | US 1994-349024  | A2 19941202 |
|                        |      |          | US 1995-435286  | A1 19950505 |

OTHER SOURCE(S): MARPAT 129:290438  
 GI



AB Peptidomimetics I (R1 = alkyl, aminoalkyl, or a ring structure which may form at R1, between R1 and R2 or between R1 and R4; R2 = H, Me or R2 and R1 form the R1 ring structure group; R3 = alkyl, alkyl alc., thioalkyl or a ring structure; R4 = H or R4 and R1 form the R1 ring structure; R5 = H or R5 and R6 form a ring structure; R6 = benzyl, 1,1-diphenylmethine, or the R5 ring structure) were prepared as inhibitors of the binding between the VLA-4 receptor and the fibronectin CS-1 domain. Thus, N-phenylacetyl-Leu-Asp-Phe-D-Pro-NH2 was prepared and assayed for binding inhibition potency (313 relative to a standard compound).

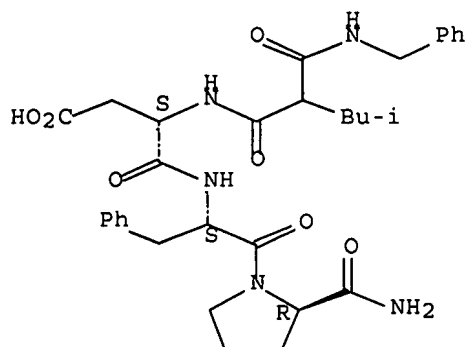
IT 209601-97-8P 209602-44-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of CS-1 peptidomimetics and their compns.)

RN 209601-97-8 CAPLUS

CN D-Prolinamide, 2-(2-methylpropyl)-3-oxo-N-(phenylmethyl)-β-alanyl-L-α-aspartyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

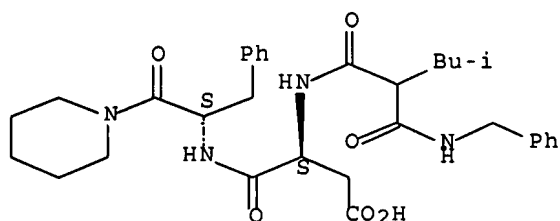
Absolute stereochemistry.



RN 209602-44-8 CAPLUS

CN L-α-Asparagine, 2-(2-methylpropyl)-3-oxo-N-(phenylmethyl)-β-alanyl-N-[(1S)-2-oxo-1-(phenylmethyl)-2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 19 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:427769 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 129:95722

TITLE: Preparation of CS-1 peptidomimetics and their compositions

INVENTOR(S): Arrhenius, Thomas S.; Elices, Mariano J.; Gaeta, Federico C. A.

PATENT ASSIGNEE(S): Cytel Corp., USA

SOURCE: U.S., 80 pp., Cont.-in-part of U.S. Ser. No. 349,024. CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| US 5770573 | A    | 19980623 | US 1995-462219  | 19950605 |
| CA 2177840 | A1   | 19950615 | CA 1994-2177840 | 19941205 |
| CN 1142832 | A    | 19970212 | CN 1994-194969  | 19941205 |
| US 5688913 | A    | 19971118 | US 1995-435286  | 19950505 |
| US 6117840 | A    | 20000912 | US 1997-837154  | 19970414 |
| US 6103870 | A    | 20000815 | US 1997-923026  | 19970903 |

PRIORITY APPLN. INFO.:

US 1993-164101

B2 19931206

US 1994-349024

A2 19941202

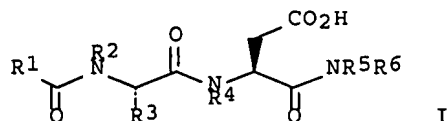
US 1995-435286

A1 19950505

OTHER SOURCE(S):

MARPAT 129:95722

GI



AB Peptidomimetics I (R1 = alkyl, aminoalkyl, or a ring structure which may form at R1, between R1 and R2 or between R1 and R4; R2 = H, Me or R2 and R1 form the R1 ring structure group; R3 = alkyl, alkyl alc., thioalkyl or a ring structure; R4 = H or R4 and R1 form the R1 ring structure; R5 = H or R5 and R6 form a ring structure; R6 = benzyl, 1,1-diphenylmethine, or the R5 ring structure) were prepared as inhibitors of the binding between the VLA-4 receptor and the fibronectin CS-1 domain. Thus, N-phenylacetyl-Leu-Asp-Phe-D-Pro-NH<sub>2</sub> was prepared and assayed for binding inhibition potency (313 relative to a standard compound).

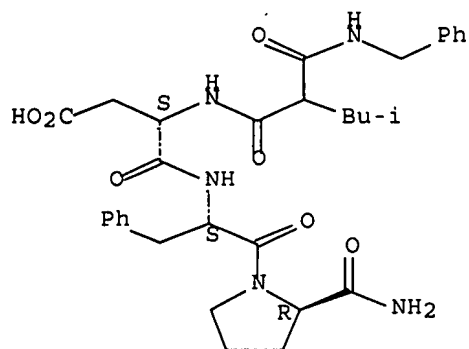
IT 209601-97-8P 209602-44-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of CS-1 peptidomimetics and their compns.)

RN 209601-97-8 CAPLUS

CN D-Prolinamide, 2-(2-methylpropyl)-3-oxo-N-(phenylmethyl)-β-alanyl-L-α-aspartyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

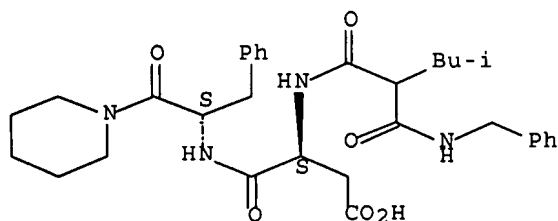
Absolute stereochemistry.



RN 209602-44-8 CAPLUS

CN L-α-Asparagine, 2-(2-methylpropyl)-3-oxo-N-(phenylmethyl)-β-alanyl-N-[(1S)-2-oxo-1-(phenylmethyl)-2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 20 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:82115 CAPLUS Full-text

DOCUMENT NUMBER: 128:188696

TITLE: Development of new potent agonists able to interact with two postulated subsites of the cholecystokinin CCK-B receptor

AUTHOR(S): Million, Marie-Emmanuelle; Lena, Isabelle; Da Nascimento, Sophie; Noble, Florence; Dauge, Valerie; Garbay, Christiane; Roques, Bernard Pierre

CORPORATE SOURCE: Dep. Pharmacochimie Moléculaire Structurale, Univ. Rene-Descartes-UFR Scis. Pharmaceutiques Biologiques, Paris, F-75270, Fr.

SOURCE: Letters in Peptide Science (1997), 4(4/5/6), 407-410  
CODEN: LPSCEM; ISSN: 0929-5666

PUBLISHER: Kluwer Academic Publishers

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Since the biochem. and pharmacol. profile of BC 197 and BC 264, two CCK8-derived agonists with high specificity for CCK-B receptors, suggests their potential interaction with two CCK-B receptor subsites, it appeared essential to design a new series of compds. that would be able to discriminate between these two subsites. As CCK4 is the shortest fragment of CCK which interacts selectively with CCK-B receptors, compds. derived from the C-terminal tetrapeptide domain of BC 264, Boc-Trp-(NMe)Nle-Asp-Phe-NH<sub>2</sub>, and of the cyclic compound BC 197, were prepared While RB 360 (N(cycloamido)- $\alpha$ -Me(R)Trp-[(2S)-2-amino-9-((cycloamido)carbonyl)nonanoyl]-Asp-Phe-NH<sub>2</sub>), like BC 197, has a CCK-B1 profile with anxiogenic-like effects in the elevated plus-maze test, RB 400 (HOOC-CH<sub>2</sub>-CO-Trp-(NMe)Nle-Asp-Phe-NH<sub>2</sub>), like BC 264, seems to be a specific CCK-B2 agonist, able to increase attention and/or memory processes in the Y-maze test.

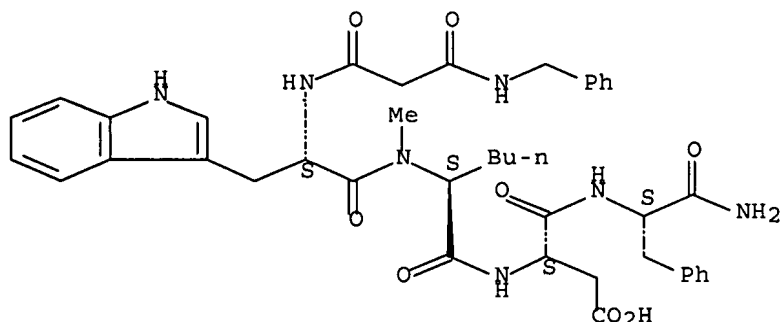
IT 203563-93-3, RB 401

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
(development of new potent agonists able to interact with two postulated subsites of cholecystokinin CCK-B receptor)

RN 203563-93-3 CAPLUS

CN L-Phenylalaninamide, 3-oxo-N-(phenylmethyl)- $\beta$ -alanyl-L-tryptophyl-N-methyl-L-norleucyl-L- $\alpha$ -aspartyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 21 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:740382 CAPLUS Full-text

DOCUMENT NUMBER: 128:359

TITLE: Method for detecting and/or quantifying a hapten in a homogeneous phase using hapten-inhibitor complex, antibody,  $\beta$ -lactamase, and reporter substrate, and device for implementation thereof

INVENTOR(S): Kohl, Michel; Renotte, Roger; Ghitti, Gianangelo; Sarlet, Guy; Lejeune, Robert

PATENT ASSIGNEE(S): Biocode S.A., Belg.; Kohl, Michel; Renotte, Roger; Ghitti, Gianangelo; Sarlet, Guy; Lejeune, Robert

SOURCE: PCT Int. Appl., 67 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE        |
|---|------|----------|-----------------|-------------|
| WO 9741435  | A1   | 19971106 | WO 1997-BE52    | 19970430    |
| W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, DE, EE, GE, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |             |
| RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG  |      |          |                 |             |
| BE 1010184  | A3   | 19980203 | BE 1996-384     | 19960430    |
| CA 2252931  | A1   | 19971106 | CA 1997-2252931 | 19970430    |
| AU 9726286  | A    | 19971119 | AU 1997-26286   | 19970430    |
| EP 897540   | A1   | 19990224 | EP 1997-917955  | 19970430    |
| R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE   |      |          |                 |             |
| JP 2000509495   | T    | 20000725 | JP 1997-538408  | 19970430    |
| AT 202848   | T    | 20010715 | AT 1997-917955  | 19970430    |
| US 6436649  | B1   | 20020820 | US 1999-171819  | 19990611    |
| US 2003235877   | A1   | 20031225 | US 2002-269673  | 20021010    |
| PRIORITY APPLN. INFO.:  |      |          | BE 1996-384     | A 19960430  |
|   |      |          | WO 1997-BE52    | W 19970430  |
|   |      |          | US 1999-171819  | A2 19990611 |
|   |      |          | US 2002-75648   | A1 20020213 |

AB The invention discloses a method for detecting and/or quantifying a hapten (e.g. a drug or hormone) in a homogeneous phase, comprising the following steps: adding a known quantity of a hapten-inhibitor complex to the solution containing the hapten to be detected and/or quantified; adding to the solution a quantity of antibodies corresponding to the quantity of the hapten/inhibitor complex; adding to the solution a type C  $\beta$ -lactamase having an active site for two substrates in antigenic competition in the active site, the first substrate being a reporter substrate capable of being transformed into a detectable and/or quantifiable product, preferably by UV-visible radiation measurement, the second substrate being the hapten/inhibitor complex acting on the hydrolysis rate of the reporter substrate; detecting and/or quantifying the concentration of the product resulting from the transformation of the reporter substrate, the  $K_m$  of the reporter substrate being at least a hundred times higher than the  $K_m$  of the hapten/inhibitor complex, and the  $k_{cat}$  being at least ten times higher than the  $k_{cat}$  of the hapten/inhibitor complex. Preparation of reagent conjugates, e.g. nandrolone carbenicillinate, is described, as is determination of e.g. nandrolone.

IT 198830-23-8P

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)

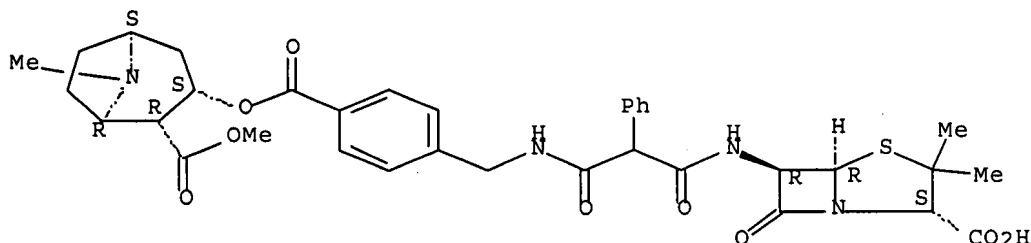
(hapten detection or determination in homogeneous phase using hapten-inhibitor

complex, antibody,  $\beta$ -lactamase, and reporter substrate, implementation device, and reagent preparation)

RN 198830-23-8 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-2-carboxylic acid, 3-[[4-[[[3-[(2S,5R,6R)-2-carboxy-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]hept-6-yl]amino]-1,3-dioxo-2-phenylpropyl]amino]methyl]benzoyl]oxy]-8-methyl-, 2-methyl ester, (1R,2R,3S,5S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L53 ANSWER 22 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:481776 CAPLUS Full-text

DOCUMENT NUMBER: 127:217787

TITLE: Isolation and synthesis of rufulamide, an oligopeptide analog from Metzgeria rufula

AUTHOR(S): Kraut, Ludwig; Klaus, Thomas; Mues, Rudiger; Eicher, Theophil; Zinsmeister, Hans Dietmar

CORPORATE SOURCE: Fachbereich Botanik, Fachbereich Organische Chemie, Univ. Saarlandes, Saarbrücken, D-66041, Germany

SOURCE: Phytochemistry (1997), 45(8), 1621-1626  
CODEN: PYTCAS; ISSN: 0031-9422

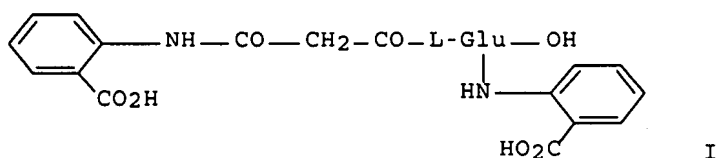
PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English



GI



AB An oligopeptide analog, rufulamide (I), consisting of L-glutamic, malonic and 2 mols. of anthranilic acid combined via amide bonds was isolated from the liverwort Metzgeria rufula. Its structure was elucidated by spectroscopic methods and by chemical synthesis.

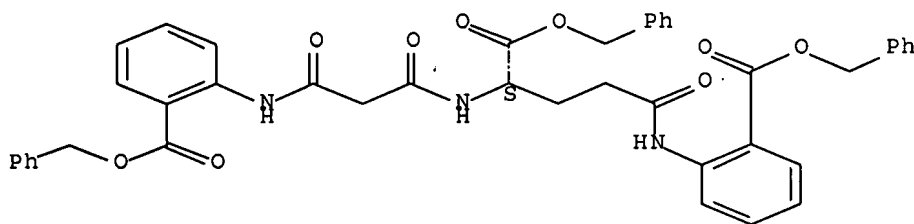
IT 194875-99-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(intermediate in preparation of rufulamide)

RN 194875-99-5 CAPLUS

CN L-Glutamine, 3-oxo-N-[2-[(phenylmethoxy)carbonyl]phenyl]-β-alanyl-N-[2-[(phenylmethoxy)carbonyl]phenyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L53 ANSWER 23 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:462231 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 125:115153

TITLE: Preparation of (acylamino)acetamide derivatives with agonist activity for cholecystokinin-A receptors

INVENTOR(S): Dezube, Milana; Hirst, Gavin Charles; Willson, Timothy Mark; Sherrill, Ronald George; Sugg, Elizabeth Ellen; Szewczyk, Jerzy Ryszard

PATENT ASSIGNEE(S): Glaxo Wellcome Inc., USA

SOURCE: PCT Int. Appl., 121 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

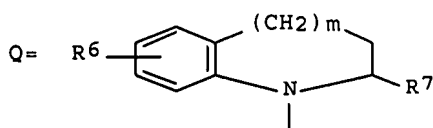
| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| WO 9611940 | A1   | 19960425 | WO 1995-EP4026  | 19951012 |

W: AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM  
 RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9538418 A 19960506 AU 1995-38418 19951012  
 EP 785944 A1 19970730 EP 1995-936483 19951012  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE  
 JP 10511929 T 19981117 JP 1995-512935 19951012  
 US 5889182 A 19990330 US 1997-817363 19970414

PRIORITY APPLN. INFO.: GB 1994-20763 A 19941014  
 WO 1995-EP4026 W 19951012

OTHER SOURCE(S): MARPAT 125:115153  
 GI



AB A cholecystokinin-A (CCK-A) agonist of the general formula  $R_1R_2NCOCH_2NR_3COR_4$  [R1 = C3-6 alkyl, C3-6 cycloalkyl, C3-6 alkenyl, Ph, (CH2)pCN, (CH2)pCO2(C1-4 alkyl); R2 = C3-6 alkyl, C3-6 cycloalkyl, C3-6 alkenyl, PhCH2, Ph or Ph mono- or disubstituted independently with C1-3 alkyl, CN, OH, NMe2, O(C1-4 alkyl), OCH2Ph, NH(C1-4 alkyl), CO2(C1-4 alkyl), N(C1-4 alkyl)2, pyrrolidino, morpholino, halo, C1-3 alkyl substituted by 1 or more F; R1 = C1-2 alkyl, R2 = 2- or 4-C6H4R, R = Cl, Me, MeO, CO2Me; R1R2N = Q; R3 = C1-6 alkyl; Ph or Ph substituted by 1 or 2 C1-3 alkyl, C1-4 alkoxy or halo groups, thiophenyl; R4 = CR6R9(CH2)n(NH)p(CO)q(NH)rR5, CH2N(CHR16R17)CO(NR)rR5; R5 = C1-6 alkyl, C3-8 cycloalkyl, Ph, mono- or disubstituted Ph, optionally substituted heteroaryl or bicycloheteroaryl; R6 = H, optionally substituted C1-3 alkyl; R7 = H, Me; R8 = H, OH, F, NMe2, C1-4 alkoxy, PhCH2O; R9 = H, C1-6 alkyl; R16 = C1-6 alkyl, C3-8 cycloalkyl, optionally halo substituted Ph, pyridyl, pyrimidinyl, thiophenyl; R17 together with R3 form o-disubstituted Ph ring optionally substituted with halo, CF3, C1-3 alkyl, C1-4 alkylthio, of C1-4 alkoxy; m = 0-2; n = 0-3; p = 0, 1; q = 0, 1; r = 0, 1] and physiol. acceptable salts thereof. Thus, ureidodipeptide amide PhNHCO-D-Glu-N(Ph)CH2CON(CHMe2)C6H4OMe-4, prepared in 4 steps from Boc-D-Glu(OCMe3)-OH, PhNH2, and BrCH2CON(CHMe2)C6H4OMe-4, was 55% as active as sulfated CCK-8 in a guinea pig gall bladder assay.

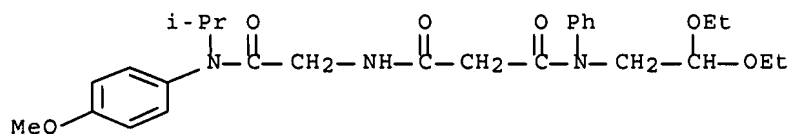
IT 179083-73-9P 179083-74-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of (acylamino)acetamide derivs. with agonist activity for cholecystokinin-A receptors)

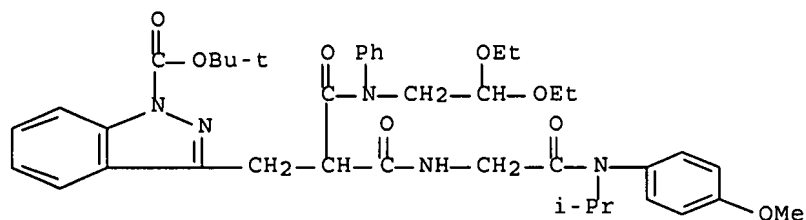
RN 179083-73-9 CAPLUS

CN Glycinamide, N-(2,2-diethoxyethyl)-3-oxo-N-phenyl-β-alanyl-N-(4-methoxyphenyl)-N-(1-methylethyl)- (9CI) (CA INDEX NAME)



RN 179083-74-0 CAPLUS

CN Glycinamide, N-(2,2-diethoxyethyl)-2-[[1-[(1,1-dimethylethoxy)carbonyl]-1H-indazol-3-yl]methyl]-3-oxo-N-phenyl-β-alanyl-N-(4-methoxyphenyl)-N-(1-methylethyl)-(9CI) (CA INDEX NAME)



L53 ANSWER 24 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:207549 CAPLUS Full-text

DOCUMENT NUMBER: 124:279362

TITLE: Inhibition of angiotensin converting enzyme and potentiation of bradykinin by retro-inverso analogs of short peptides and sequences related to angiotensin I and bradykinin

AUTHOR(S): Carmona, Adriana K.; Juliano, Luiz

CORPORATE SOURCE: Dep. Biophysics, Escola Paulista Medicina, Sao Paulo, Brazil

SOURCE: Biochemical Pharmacology (1996), 51(8), 1051-60

CODEN: BCPCA6; ISSN: 0006-2952

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB There is pharmacol. evidence indicating that, in addition to the inhibition of angiotensin converting enzyme (ACE; EC 3.4.15.1), the potentiation of bradykinin (BK) responses may also involve the BK receptor or some binding site in the structures involved in the contractile response to this peptide. Dipeptides such as Val-Trp and some of its analogs as well as tripeptide homologs, including total and partial retro-inverso peptides, were synthesized and assayed for their ability to inhibit purified guinea pig plasma ACE and to potentiate the action of BK on the isolated ileum of the same species. The peptides containing the P2-P1, P1-P'1, and P'1-P'2 inverted amide bonds inhibited ACE, were resistant to hydrolysis, and, depending on the amino acid composition, some of them potentiated the contractile response to BK while others did not. Des-[Arg1]-BK, which has an intrinsic activity at concns. higher than 10<sup>-5</sup>M, and the very dissimilar angiotensin I (AI) analog [Cys5-Cys10]-angiotensin-I-(5-10)-amide, which has no detectable contractile activity, were able to inhibit ACE and potentiate BK. In contrast to these peptides, BPP5a and BPP9a from Bothrops jararaca venom, and potentiators B and C from Agkistrodon halys blomhoffi venom were more effective as BK potentiators than as ACE inhibitors. In conclusion, the authors have

synthesized and assayed compds. that preferentially inhibit ACE, e.g. retro-inverso tripeptides, or potentiate the response of smooth muscle to BK, e.g. snake venom peptides.

IT 175412-96-1P

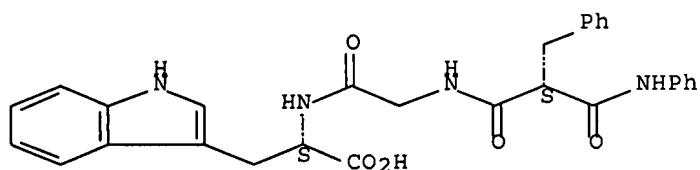
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(angiotensin converting enzyme inhibition and bradykinin potentiation by angiotensin I and bradykinin short peptide retro-inverso analogs)

RN 175412-96-1 CAPLUS

CN L-Tryptophan, N-[N-[3-oxo-N-phenyl-(S)-2-(phenylmethyl)-β-alanyl]glycyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L53 ANSWER 25 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:828305 CAPLUS Full-text

DOCUMENT NUMBER: 123:228915

TITLE: Preparation of biphenyllyltetrazole-containing amino acid and dipeptide derivatives as angiotensin II antagonists

INVENTOR(S): Naka, Yoichi; Sonda, Shuji; Nakagawa, Haruto; Uehata, Masayoshi

PATENT ASSIGNEE(S): Yoshitomi Pharmaceutical Industries, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

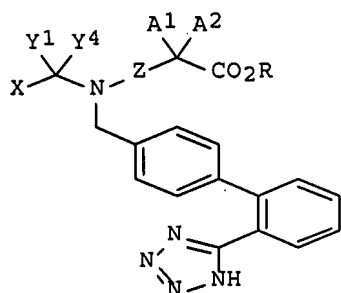
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

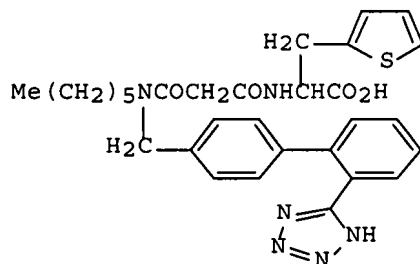
| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
| JP 07048360            | A    | 19950221 | JP 1994-116464  | 19940530   |
| PRIORITY APPLN. INFO.: |      |          | JP 1994-116464  | A 19940530 |
|                        |      |          | JP 1993-154348  | 19930531   |

OTHER SOURCE(S): MARPAT 123:228915

GI



I



II

AB The title compds. [I; X = (un)substituted NH<sub>2</sub>, alkenyl, cycloalkyl, aryl, or heteroaryl, saturated carbocyclyl containing NR in the ring; wherein R = H, acyl, alkoxy carbonyl, aralkoxy carbonyl; Y<sub>1</sub>, Y<sub>2</sub> = H, alkyl, alkenyl, cycloalkyl, halo, OR<sub>1</sub>, NHR<sub>1</sub>, CO<sub>2</sub> R<sub>1</sub>, CONHR<sub>1</sub>, COR<sub>1</sub>, aryl, heteroaryl; or Y<sub>1</sub>Y<sub>2</sub> = O, S; wherein R<sub>1</sub> = H, alkyl, alkenyl, cycloalkyl, aryl, heteroaryl; Z = CONH, CH<sub>2</sub>CONH, COCH<sub>2</sub>NH, COCH<sub>2</sub>CONH, single bond; when Z = CONH, A<sub>1</sub>A<sub>2</sub> = cycloalkane ring optionally having a benzene ring-fused C5-7 substituent; when Z = CH<sub>2</sub>CONH, COCH<sub>2</sub>NH, COCH<sub>2</sub>CONH, or single bond, A<sub>1</sub>, A<sub>2</sub> = H, (un)substituted alkyl, alkenyl, cycloalkyl, aryl, heteroaryl, aralkyl, or heteroaralkyl or A<sub>1</sub>A<sub>2</sub> = cycloalkane ring optionally having a benzene ring-fused C5-7 substituent], useful for the treatment of hypertension, ischemic heart failure, stroke, kidney diseases, and hypertrophy of the heart or blood vessels, are prepared Thus, H-Phe-OCH<sub>2</sub>Ph was alkylated by [2'-(triphenylmethyl-1H-tetrazol-5-yl)biphenyl-4-yl]methyl bromide in the presence of K<sub>2</sub>CO<sub>3</sub> in DMF at room temperature for 24 h and then condensed with Z-Pro-Cl in aqueous NaHCO<sub>3</sub>/CH<sub>2</sub>Cl<sub>2</sub> at room temperature for 3 h followed by deprotection with 2 N HCl/dioxane and hydrogenolysis over 10% Pd-C in EtOH-dioxane to give N-(S)-prolyl-N-[2'-(1H-tetrazol-5-yl)biphenyl-4-yl]methyl-(S)-phenylalanine. (RS)-(2-thienyl)alanine derivative (II) in vitro showed IC<sub>50</sub> of 13 nM against angiotensin II in vascular smooth muscle cells of rat thoracic aorta.

IT 168466-38-4P

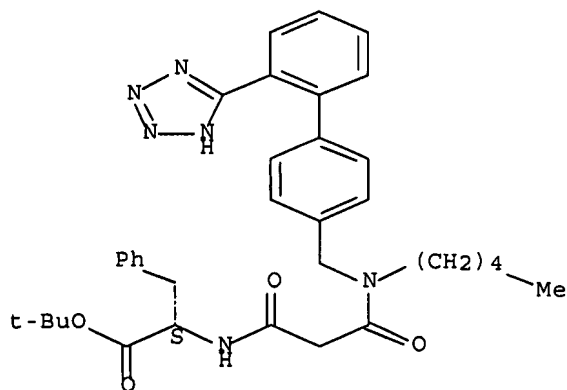
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate for preparation of biphenyltetrazole-containing amino acid and dipeptide derivs. as angiotensin II antagonists)

RN 168466-38-4 CAPLUS

CN L-Phenylalanine, N-[3-oxo-N-pentyl-N-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-β-alanyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L53 ANSWER 26 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:643894 CAPLUS Full-text

DOCUMENT NUMBER: 123:313504

TITLE: New applications of fluorinated building blocks

AUTHOR(S): Abouabdellah, A.; Boros, L.; Gyenes, F.; Welch, J. T.

CORPORATE SOURCE: Department of Chemistry, State University of New York, Albany, NY, 12222, USA

SOURCE: Journal of Fluorine Chemistry (1995), 72(2), 255-9  
CODEN: JFLCAR; ISSN: 0022-1139

PUBLISHER: Elsevier Sequoia

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 123:313504

AB A new and versatile synthesis of optically active  $\alpha$ -fluoromalonamide derivs. from enantiomerically pure 3-fluoro-2-azetidinones is described. A fluorinated retroamide isostere based on these  $\alpha$ -fluoromalonamides was introduced into a small peptidomimetic for use as an HIV-1 protease inhibitor. The same strategy was employed in efforts to prepare a novel trifluorostatone-type peptidomimetic.

IT 160000-01-1P

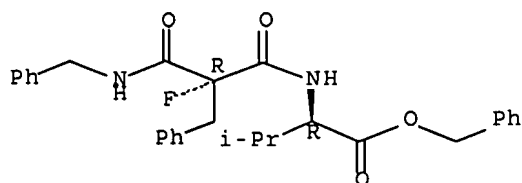
RL: SPN (Synthetic preparation); PREP (Preparation)

(versatile synthesis of optically active  $\alpha$ -fluoromalonamide derivs. from enantiomerically pure 3-fluoro-2-azetidinones)

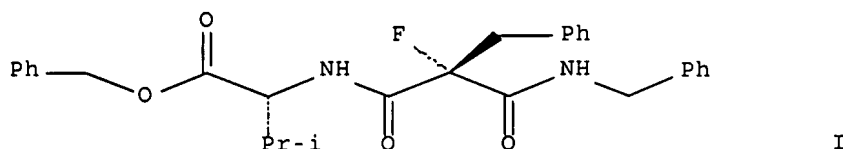
RN 160000-01-1 CAPLUS

CN D-Valine, N-[2-fluoro-1,3-dioxo-2-(phenylmethyl)-3-[(phenylmethyl)amino]propyl]-, phenylmethyl ester, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L53 ANSWER 27 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1995:30147 CAPLUS Full-text  
 DOCUMENT NUMBER: 122:56436  
 TITLE: Optically active fluorinated  $\beta$ -lactam building blocks: a novel fluorinated retroamide isostere  
 AUTHOR(S): Abouabdellah, Ahmed; Welch, John T.  
 CORPORATE SOURCE: Department of Chemistry, State Univ. New York, Albany, NY, 12222, USA  
 SOURCE: Tetrahedron: Asymmetry (1994), 5(6), 1005-13  
 CODEN: TASYE3; ISSN: 0957-4166  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



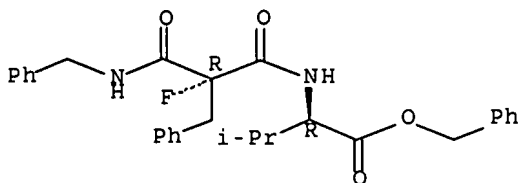
AB A new and versatile synthesis of optically active  $\alpha$ -fluoro- malonamide derivs. from enantiomerically pure 3-fluoro-2-azetidinones is described. A fluorinated retroamide isostere, (-)-(R)- HO<sub>2</sub>CCF(CH<sub>2</sub>Ph)CONHCH<sub>2</sub>Ph, was introduced into a small peptidomimetic(I) for use as an HIV-1 protease inhibitor.

IT 160000-01-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (synthesis of valylfluoromalonamides)

RN 160000-01-1 CAPLUS

CN D-Valine, N-[2-fluoro-1,3-dioxo-2-(phenylmethyl)-3-[(phenylmethyl)amino]propyl]-, phenylmethyl ester, (R)- (9CI) (CA INDEX NAME)

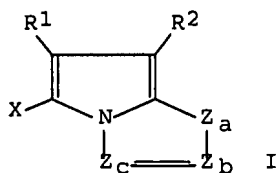
Absolute stereochemistry.



L53 ANSWER 28 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1994:641574 CAPLUS Full-text  
 DOCUMENT NUMBER: 121:241574  
 TITLE: Silver halide color photographic photosensitive material  
 INVENTOR(S): Nakagawa, Hajime; Shimada, Yasuhiro  
 PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 73 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.                   | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------------|------|----------|-----------------|----------|
| JP 05297538                  | A    | 19931112 | JP 1992-121080  | 19920416 |
| PRIORITY APPLN. INFO.:<br>GI |      |          | JP 1992-121080  | 19920416 |



AB The title material contains  $\geq 1$  kind(s) of cyan couplers I ( $Z_a = \text{NH}$ , CHR3;  $Z_b$ ,  $Z_c = \text{CR}_4$ , N;  $R_1$ -3 = electron-withdrawing group having a Hammett's substituent constant  $\sigma_p > 0.20$ ; the sum of the  $\sigma_p$  values of  $R_1$  and  $R_2$  is  $> 0.65$ ;  $R_4 = \text{H}$ , substrate, if there are  $> 2$  of  $R_4$  they may be the same or different;  $X = \text{H}$ , group to be eliminated upon coupling;  $R_1$ -4 or  $X$  may become a divalent group and bond with a polymer which is larger than a dimer or a polymer chain to form a homopolymer or a copolymer) and  $\geq 1$  kind(s) of development inhibitor-releasing couplers A- $\{(L_1)a-(B)m\}p-(L_2)n$ -DI [A = group which splits  $\{(L_1)a-(B)m\}p-(L_2)n$ -DI upon reaction with an oxidized aromatic primary amine developing agent;  $L_1$  = group which splits the bond at its right side (the bond with  $(B)n$ ) after breaking the bond at its left side;  $B$  = group which splits the bond at its right side upon reaction with an oxidized developing agent;  $L_2$  = group which splits the bond at its right side (the bond with DI) after breaking the bond at its left side; DI = development inhibitor;  $a, m, n = 0, 1$ ;  $p = 0-2$ , when  $p$  is plural  $(L_1)a-(B)m$  may be the same or different]. The material shows good color reproducibility and superior shelf life.

IT 158372-17-9

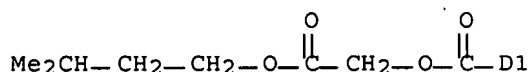
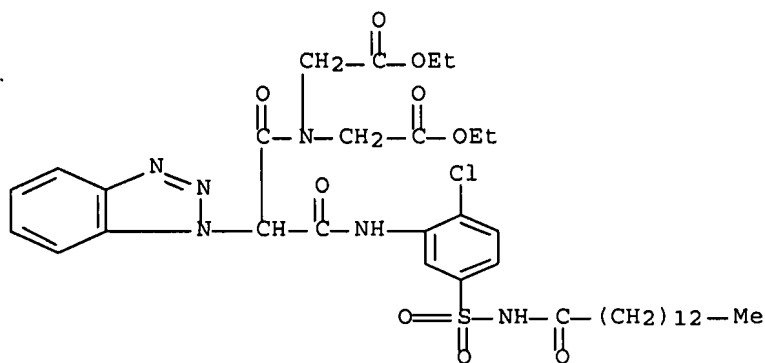
RL: USES (Uses)

(photog. development inhibitor-releasing coupler)

RN 158372-17-9 CAPLUS

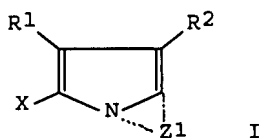
CN 1H-Benzotriazolecarboxylic acid, 1-[1-[[bis(2-ethoxy-2-oxoethyl)amino]carbonyl]-2-[[2-chloro-5-[[[(1-oxotetradecyl)amino]sulfonyl]phenyl]amino]-2-oxoethyl]-, 2-(3-methylbutoxy)-2-oxoethyl ester (9CI) (CA INDEX NAME)





L53 ANSWER 29 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1994:495837 CAPLUS Full-text  
 DOCUMENT NUMBER: 121:95837  
 TITLE: Silver halide color photographic materials with  
 excellent color reproducibility and storage stability  
 INVENTOR(S): Nakagawa, Hajime; Yamakawa, Kazuyoshi  
 PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 75 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.                | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------------------|------|----------|-----------------|----------|
| JP 05281680               | A    | 19931029 | JP 1992-108460  | 19920402 |
| PRIORITY APPLN. INFO.: GI |      |          | JP 1992-108460  | 19920402 |



AB The Ag halide color photog. material, comprising  $\geq 1$  red-, green-, and blue-sensitive Ag halide emulsion layers on a support, contains a cyan coupler I [R1 = H, substituent; R2 = substituent; X = H, moiety released upon coupling reaction with oxidation products of color developing agent; Z1 = nonmetallic atomic group forming N-containing 6-membered heterocyclyl; heterocyclyl contains  $\geq 1$  dissociating moiety] and a DIR coupler A- $\{(L1)a-(B)n\}p-(L2)n$ -DI [A

= moiety releasing {(L1)a-(B)n}p-(L2)n-DI upon reacting with aromatic primary amine developing agent; L1 = moiety released from A and then from B; B = moiety released from L2 upon reaction with oxidation products of developing agent; L2 = moiety released from C and then from DI; DI = development inhibitor; a, m, n = 0, 1; p = 0-2].

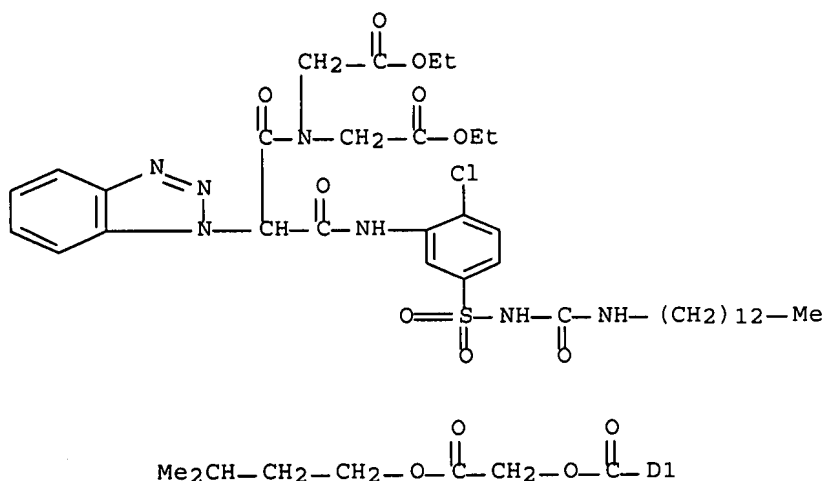
IT 156343-04-3

RL: USES (Uses)

(silver halide color photog. material containing)

RN 156343-04-3 CAPLUS

CN 1H-Benzotriazolecarboxylic acid, 1-[1-[[bis(2-ethoxy-2-oxoethyl)amino]carbonyl]-2-[[2-chloro-5-[[[(tridecylamino)carbonyl]amino]sulfonyl]phenyl]amino]-2-oxoethyl]-, 2-(3-methylbutoxy)-2-oxoethyl ester (9CI) (CA INDEX NAME)



L53 ANSWER 30 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1994:482789 CAPLUS Full-text

DOCUMENT NUMBER: 121:82789

TITLE: Acid-aided reactions of 3-acylamino-β-lactams: some observations

AUTHOR(S): Sanjayan, Gangadhar J.; Mukerjee, Arya K.

CORPORATE SOURCE: Fac. Sci., Banaras Hindu Univ., Varanasi, 221 005, India

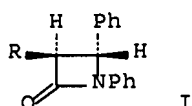
SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1994), 33B(1), 76-8

CODEN: IJSBDB; ISSN: 0376-4699

DOCUMENT TYPE: Journal

LANGUAGE: English

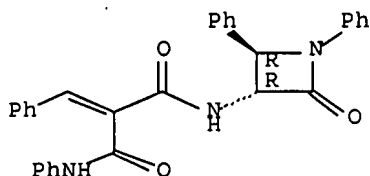
GI



IT 156486-82-7

RN 156486-82-7 CAPLUS

Relative stereochemistry.  
Double bond geometry unknown.



| PATENT NO.             | KIND | DATE             | APPLICATION NO. | DATE        |
|------------------------|------|------------------|-----------------|-------------|
| EP 568037              | A1   | 19931103         | EP 1993-106891  | 19930428    |
| EP 568037              | B1   | 19981104         |                 |             |
| R: BE, DE, FR, GB, NL  |      |                  |                 |             |
| JP 05307248            | A    | 19931119         | JP 1992-134523  | 19920428    |
| JP 2835665             | B2   | 19981214         |                 |             |
| US 5459024             | A    | 19951017         | US 1995-400269  | 19950303    |
| PRIORITY APPLN. INFO.: |      |                  | JP 1992-134523  | A 19920428  |
|                        |      |                  | US 1993-52670   | B1 19930427 |
| OTHER SOURCE(S):       |      | MARPAT 121:46485 |                 |             |

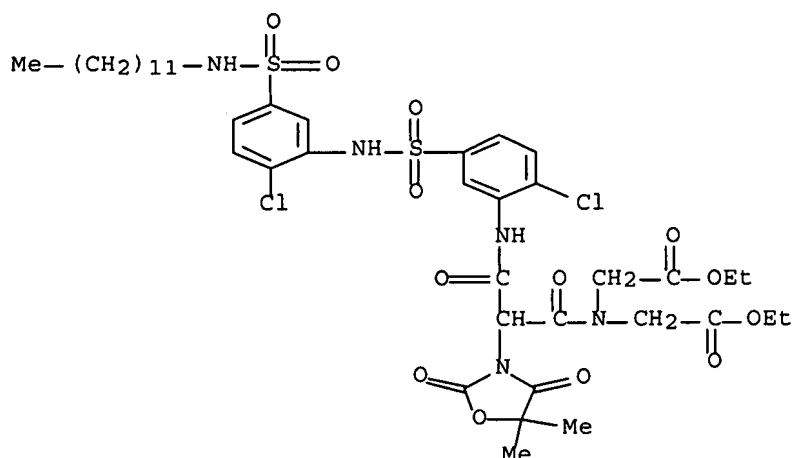
AB The present invention relates to silver halide color photog. materials having improved sharpness, higher photog. speeds and increased fastness by forming images in the presence of couplers wherein the rate of dye formation is high, the color forming d. is high and the dye which is formed has a high degree of fastness. A photog. coupler represented by the formula  $R_1R_2NCOCHXCONH_2SO_2NR_3R_4$  wherein  $R_1$  and  $R_2$  each independently represents an alkyl group, an aryl group or a heterocyclic group,  $R_3$  represents a hydrogen atom, an alkyl group, an aryl group or a heterocyclic group,  $X$  represents a group which can be eliminated when the coupler reacts with an oxidized product of a primary aromatic amine developing agent,  $Z$  represents a phenylene group,  $R_4$  represents an aryl group or a heterocyclic group, and  $R_1$  and  $R_2$ ,  $R_3$  and  $Z$ , or  $R_3$  and  $R_4$  may be linked to form a ring is contained in at least one hydrophilic colloid layer of the silver halide color photog. materials.

IT 155926-64-0

RL: TEM (Technical or engineered material use); USES (Uses)  
(photog. coupler)

RN 155926-64-0 CAPLUS

CN Glycine, N-[N-[2-chloro-5-[[[2-chloro-5-[(dodecylamino)sulfonyl]phenyl]amino]sulfonyl]phenyl]-2-(5,5-dimethyl-2,4-dioxo-3-oxazolidinyl)-3-oxo- $\beta$ -alanyl]-N-(2-ethoxy-2-oxoethyl)-, ethyl ester (9CI) (CA INDEX NAME)



L53 ANSWER 32 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1993:539079 CAPLUS Full-text

DOCUMENT NUMBER: 119:139079

TITLE: Preparation of (pyrrolidinoethyl)urea derivatives as analgesics

INVENTOR(S): Takeuchi, Makoto; Takayama, Kazuhisa; Onda, Kenichi; Motoie, Hiroyuki; Isomura, Yasuo

PATENT ASSIGNEE(S): Yamanouchi Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 93 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

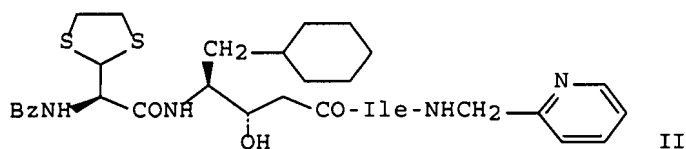
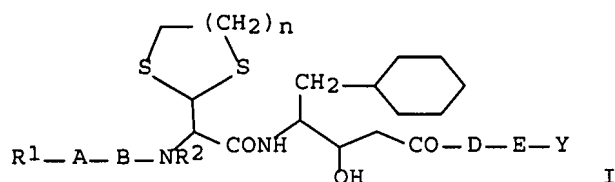
PATENT INFORMATION:

| PATENT NO. | KIND | DATE  | APPLICATION NO. | DATE  |
|------------|------|-------|-----------------|-------|
| -----      | ---- | ----- | -----           | ----- |



ACCESSION NUMBER: 1992:612973 CAPLUS Full-text  
 DOCUMENT NUMBER: 117:212973  
 TITLE: Renin-inhibiting peptides of the cyclohexylstatine type  
 INVENTOR(S): Bender, Wolfgang; Schmidt, Gunter; Knorr, Andreas; Stasch, Johannes Peter  
 PATENT ASSIGNEE(S): Bayer A.-G., Germany  
 SOURCE: Ger. Offen., 61 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

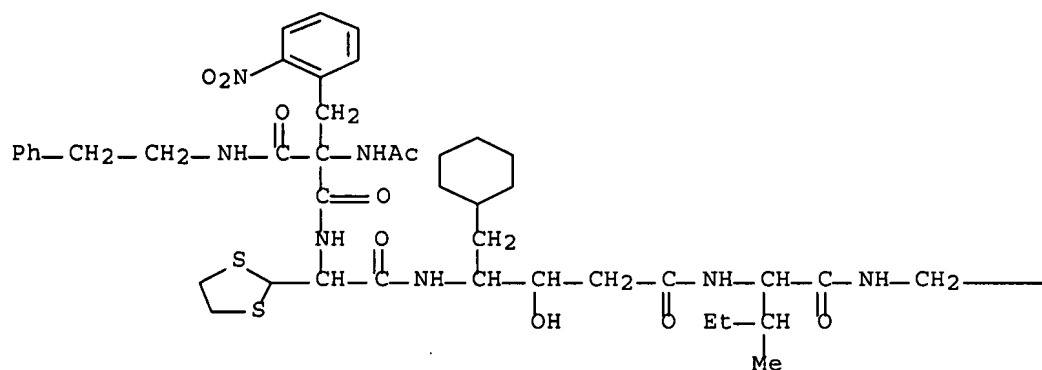
| PATENT NO.   | KIND | DATE     | APPLICATION NO.   | DATE       |
|--|------|----------|-------------------|------------|
| DE 4038921   | A1   | 19920611 | DE 1990-4038921   | 19901206   |
| WO 9210509   | A1   | 19920625 | WO 1991-EP2300    | 19911203   |
| W: AU, BG, BR, CA, CS, FI, HU, JP, KR, NO, PL, RO, SU, US  |      |          |                   |            |
| RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE |      |          |                   |            |
| AU 9190252   | A    | 19920708 | AU 1991-90252     | 19911203   |
| JP 06503315  | T    | 19940414 | JP 1992-500344    | 19911203   |
| PRIORITY APPLN. INFO.:                                     |      |          | DE 1990-4038921   | A 19901206 |
|  |      |          | WO 1991-EP2300    | A 19911203 |
| OTHER SOURCE(S):   |      |          | MARPAT 117:212973 |            |
| GI   |      |          |                   |            |



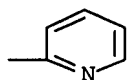
AB Peptides I [A, B, D, E = bond, (un)protected amino acid; R1 = H, protective group, acyl; R2 = H, alkyl, CH2Ph; R1-A-B-NR2 = heterocyclic; Y = H, alkyl, cycloalkyl, protective group) (un)substituted NH2; n = 1, 2] were prepared as plasma renin inhibitors (no data). Thus, peptide II was obtained from amino(dithiolene)acetic acid in 4 steps.  
 IT 144165-68-4P 144299-10-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 144165-68-4 CAPLUS  
 CN L-threo-Pentonamide, 4-[ [N-[N-acetyl-2-nitro- $\alpha$ -[[ (2-phenylethyl)amino]carbonyl]-D-phenylalanyl]-L-2-(1,3-dithiolan-2-yl)glycyl]amino]-5-cyclohexyl-2,4,5-trideoxy-N-[2-methyl-1-[[ (2-

pyridinylmethyl)amino]carbonyl]butyl]-, [S-(R\*,R\*)]- (9CI) (CA INDEX NAME)

PAGE 1-A

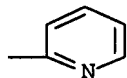
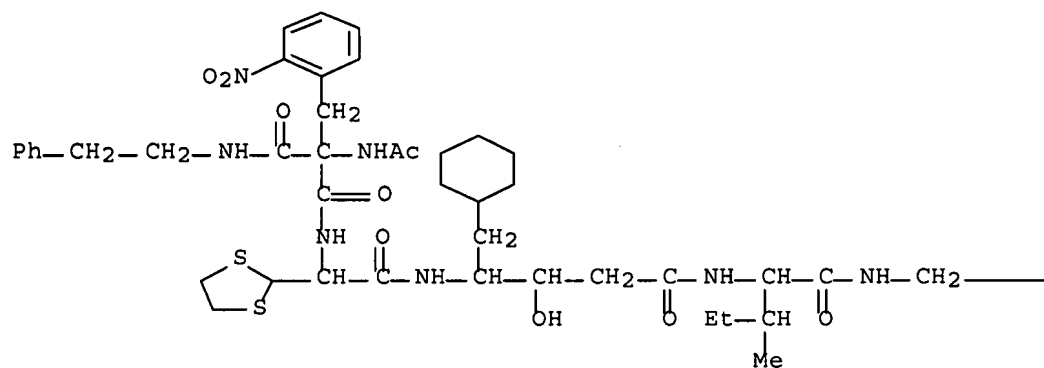


PAGE 1-B



RN 144299-10-5 CAPLUS

CN L-threo-Pentonamide, 4-[N-[N-acetyl-2-nitro- $\alpha$ -[[2-phenylethyl)amino]carbonyl]-L-phenylalanyl]-L-2-(1,3-dithiolan-2-yl)glycyl]amino]-5-cyclohexyl-2,4,5-trideoxy-N-[2-methyl-1-[[2-pyridinylmethyl)amino]carbonyl]butyl]-, [S-(R\*,R\*)]- (9CI) (CA INDEX NAME)

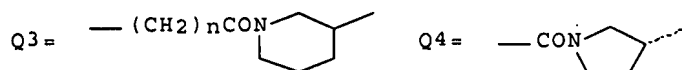


L53 ANSWER 34 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1992:129634 CAPLUS Full-text  
 DOCUMENT NUMBER: 116:129634  
 TITLE: Preparation of amidino derivatives of peptides and amino acids as drugs  
 INVENTOR(S): Alig, Leo; Edenhofer, Albrecht; Mueller, Marcel; Trzeciak, Arnold; Weller, Thomas  
 PATENT ASSIGNEE(S): Hoffmann-La Roche, F., A.-G., Switz.  
 SOURCE: Eur. Pat. Appl., 28 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| EP 445796   | A2   | 19910911 | EP 1991-103462  | 19910307 |
| EP 445796   | A3   | 19911030 |                 |          |
| EP 445796   | B1   | 19980617 |                 |          |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE |      |          |                 |          |
| CA 2037153  | A1   | 19910910 | CA 1991-2037153 | 19910226 |



|                        |                   |          |                 |            |
|------------------------|-------------------|----------|-----------------|------------|
| ZA 9101534             | A                 | 19911127 | ZA 1991-1534    | 19910301   |
| HU 56582               | A2                | 19910930 | HU 1991-186     | 19910304   |
| AU 9172086             | A                 | 19920820 | AU 1991-72086   | 19910304   |
| AU 646838              | B2                | 19940310 |                 |            |
| IL 97401               | A                 | 19950315 | IL 1991-97401   | 19910304   |
| US 5273982             | A                 | 19931228 | US 1991-665110  | 19910305   |
| FI 9101148             | A                 | 19910910 | FI 1991-1148    | 19910307   |
| JP 04217652            | A                 | 19920807 | JP 1991-65316   | 19910307   |
| JP 2501252             | B2                | 19960529 |                 |            |
| RU 2072359             | C1                | 19970127 | RU 1991-4894657 | 19910307   |
| AT 167482              | T                 | 19980715 | AT 1991-103462  | 19910307   |
| ES 2118067             | T3                | 19980916 | ES 1991-103462  | 19910307   |
| NO 9100934             | A                 | 19910910 | NO 1991-934     | 19910308   |
| NO 301167              | B1                | 19970922 |                 |            |
| BR 9100941             | A                 | 19911105 | BR 1991-941     | 19910308   |
| PRIORITY APPLN. INFO.: |                   |          | CH 1990-775     | A 19900309 |
|                        |                   |          | CH 1991-115     | A 19910117 |
|                        |                   |          | CH 1991-192     | 19910123   |
| OTHER SOURCE(S):       | MARPAT 116:129634 |          |                 |            |
| GI                     |                   |          |                 |            |



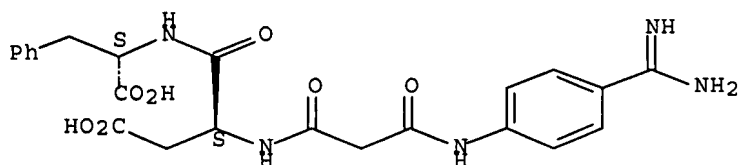
AB H2N(HN:)C-X-Y-CO-Z-CH(Q1)CO2Q2 [Q1 = H, Me, Ph; Q2 = H, phenylalkyl, physiol. cleavable alkyl; X = phenylene, pyridylene, piperidinylene; Y = CH2CH2NHCOCH2, NHCO(CH2)3, Q3, Q4, etc.; n = 0-2; Z = piperazinylene, piperidinylene, NHCH2, NHCHMe, etc.], were prepared Thus, H-β-Ala-Asp(OCMe3)-Phe-OCMe3 (preparation given) was condensed with 4-NCC6H4CO2H to give the N-cyanobenzoyl derivative, which was treated with H2S in pyridine/Et3N to give the N-thiocarbamoylbenzoyl derivative The latter was refluxed with MeI in acetone and the product was refluxed with NH4OAc in MeOH to give the protected N-amidinobenzoyl derivative, which was treated with CF3CO2H to give N-[N-[N-(p-amidinobenzoyl)-β-alanyl]-α-aspartyl]-3-phenylalanine trifluoroacetate. The latter inhibited fibrinogen binding to its receptor (glycoprotein IIb/IIIa) with IC50 = 0.003 μM.

IT 138107-62-7P 138108-00-6P  
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of, as drug)

RN 138107-62-7 CAPLUS

CN L-Phenylalanine, N-[N-[N-[4-(aminoiminomethyl)phenyl]-3-oxo-β-alanyl]-L-α-aspartyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 138108-00-6 CAPLUS

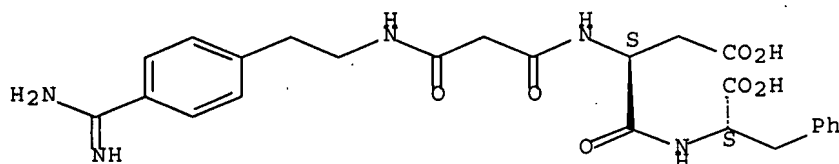
CN L-Phenylalanine, N-[N-[N-[2-[4-(aminoiminomethyl)phenyl]ethyl]-3-oxo-beta-alanyl]-L-alpha-aspartyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 138107-99-0

CMF C25 H29 N5 O7

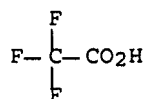
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



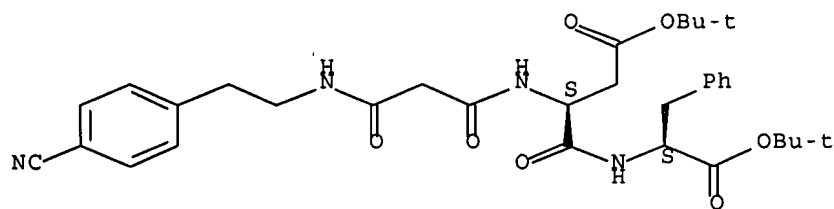
IT 138135-00-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, as drug intermediate)

RN 138135-00-9 CAPLUS

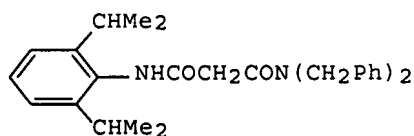
CN L-Phenylalanine, N-[N-[N-[2-(4-cyanophenyl)ethyl]-3-oxo-beta-alanyl]-L-alpha-aspartyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L53 ANSWER 35 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1991:655831 CAPLUS Full-text  
 DOCUMENT NUMBER: 115:255831  
 TITLE: Preparation of N,N'-disubstituted malonamides as  
 cholesterol acyltransferase inhibitors  
 INVENTOR(S): Roark, William H.  
 PATENT ASSIGNEE(S): Warner-Lambert Co., USA  
 SOURCE: Can. Pat. Appl., 50 pp.  
 CODEN: CPXXEB  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND              | DATE     | APPLICATION NO. | DATE       |
|---|-------------------|----------|-----------------|------------|
| CA 2030105  | A1                | 19910517 | CA 1990-2030105 | 19901115   |
| AU 9066590  | A                 | 19910613 | AU 1990-66590   | 19901113   |
| FI 9005645  | A                 | 19910517 | FI 1990-5645    | 19901114   |
| NO 9004955  | A                 | 19910521 | NO 1990-4955    | 19901115   |
| EP 433662   | A2                | 19910626 | EP 1990-121904  | 19901115   |
| EP 433662   | A3                | 19910703 |                 |            |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE |                   |          |                 |            |
| HU 57705  | A2                | 19911230 | HU 1990-7154    | 19901115   |
| ZA 9009186  | A                 | 19920729 | ZA 1990-9186    | 19901115   |
| CN 1051733  | A                 | 19910529 | CN 1990-109182  | 19901116   |
| JP 03220164   | A                 | 19910927 | JP 1990-308982  | 19901116   |
| PRIORITY APPLN. INFO.:                                    |                   |          | US 1989-437727  | A 19891116 |
|   |                   |          | US 1990-594484  | A 19901009 |
| OTHER SOURCE(S):  | MARPAT 115:255831 |          |                 |            |
| GI  |                   |          |                 |            |



I

AB Title compds. ArNHCO(CH<sub>2</sub>)<sub>m</sub>CR<sub>3</sub>R<sub>4</sub>(CH<sub>2</sub>)<sub>n</sub>CONR<sub>1</sub>R<sub>2</sub> [Ar = (CH<sub>2</sub>)<sub>x</sub>R; (substituted) naphthyl; R = (substituted) Ph; m, n, x = 0-2; R<sub>3</sub>, R<sub>4</sub> = H, (hydroxy)C<sub>1</sub>-10 alkyl, (amino)C<sub>1</sub>-10 alkyl; 1 of R<sub>3</sub>, R<sub>4</sub> = H and the other = amino; R<sub>1</sub>, R<sub>2</sub> = H, (CH<sub>2</sub>)<sub>t</sub>CR<sub>7</sub>R<sub>8</sub>(CH<sub>2</sub>)<sub>w</sub>R<sub>9</sub>, C<sub>1</sub>-20 hydrocarbyl, (amino)C<sub>1</sub>-6 alkyl, (carboalkoxy)C<sub>1</sub>-6

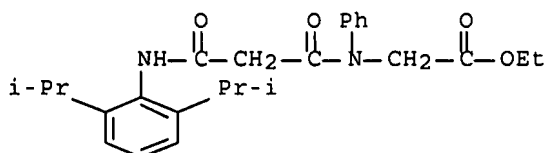
alkyl, (substituted) Ph, etc.; R7, R8 = H, C1-6 alkyl; R9 = (substituted) Ph or R8 = (substituted) Ph when R7 = H; t, w = 0-4; t + w ≤ 5] were prepared as cholesterol acyltransferase inhibitors. Thus, 2,6-diisopropylaniline was condensed with ClCOCH2CO2Et and the product was hydrolyzed to carboxymethyl amide. This was coupled with (PhCH2)2NH to give title compound I. I had IC50 of 0.013 μM against cholesterol acyltransferase. I lowered blood cholesterol by 42 mg/dL in rats.

IT 137379-32-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of, as cholesterol acyltransferase inhibitor)

RN 137379-32-9 CAPLUS

CN Glycine, N-[3-[[2,6-bis(1-methylethyl)phenyl]amino]-1,3-dioxopropyl]-N-phenyl-, ethyl ester (9CI) (CA INDEX NAME)



L53 ANSWER 36 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1991:123053 CAPLUS Full-text

DOCUMENT NUMBER: 114:123053

TITLE: Synthesis of human renin inhibitory peptides, angiotensinogen transition-state analogs containing a retro-inverso amide bond

AUTHOR(S): Harada, Hiromu; Iizuka, Kinji; Kamijo, Tetsuhide; Akahane, Kenji; Yamamoto, Ryoji; Nakano, Yasushi; Tsubaki, Atsushi; Kubota, Tetsuhiro; Shimaoka, Iwao; et al.

CORPORATE SOURCE: Cent. Res. Lab., Kissei Pharm. Co., Ltd., Matsumoto, 399, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (1990), 38(11), 3042-7

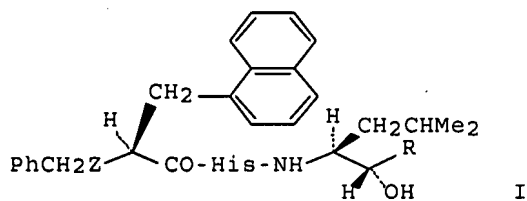
CODEN: CPBTAL; ISSN: 0009-2363

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 114:123053

GI

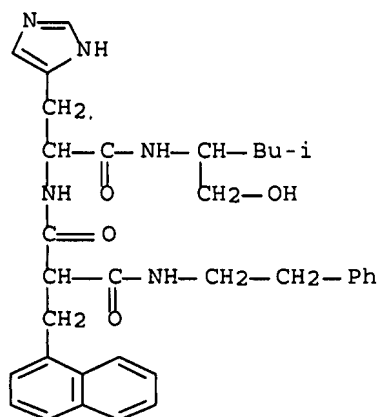


AB The exptl. details for the synthesis of human renin inhibitors I (Z = CH<sub>2</sub>NHCOCH<sub>2</sub>, R = H, CONHCH<sub>2</sub>CH<sub>2</sub>CHMe<sub>2</sub>, CO<sub>2</sub>Me, CH<sub>2</sub>CO<sub>2</sub>Me; Z = O<sub>2</sub>CNH, CONHCH<sub>2</sub>, CH<sub>2</sub>NHCO, NHCOCH<sub>2</sub>, R = H) are described. In order to avoid metabolic degradation of the Phe-His amide bond in transition-state analogs, structurally modified acyl residues were incorporated into the inhibitors. I (Z = CH<sub>2</sub>NHCOCH<sub>2</sub>, R = CONHCH<sub>2</sub>CH<sub>2</sub>CMe<sub>2</sub>) had potent human renin inhibitory activity, and it lowered blood pressure when administered orally to common marmosets.

IT 132413-89-9P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (preparation and renin inhibitory activity of)

RN 132413-89-9 CAPLUS

CN Propanediamide, N-[2-[[1-(hydroxymethyl)-3-methylbutyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]-2-(1-naphthalenylmethyl)-N'-(2-phenylethyl)-, [2S-[1[R\*(R\*)],2R\*]]- (9CI) (CA INDEX NAME)



L53 ANSWER 37 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1990:526032 CAPLUS Full-text  
 DOCUMENT NUMBER: 113:126032  
 TITLE: The anti-leishmanial activity of dipeptide esters on *Leishmania amazonensis* amastigotes  
 AUTHOR(S): Ramazeilles, C.; Juliano, L.; Chagas, J. R.; Rabinovitch, M.  
 CORPORATE SOURCE: Unite Immunoparasitol., Inst. Pasteur, Paris, 75724, Fr.  
 SOURCE: Parasitology (1990), 100(2), 201-7  
 CODEN: PARAAE; ISSN: 0031-1820  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB L-Amino acid esters, such as L-Leu-OMe, kill *L. amazonensis* amastigotes by a mechanism which appears to involve ester hydrolysis by cysteine proteinases located in the parasite megasomes. The killing of isolated amastigotes by L-dipeptide esters and some structure-activity correlations were demonstrated. Toxicity of the compds. for the parasites was measured by a tetrazolium (MTT) reduction assay. The results show that active dipeptide esters contained at least 1 hydrophobic amino acid (Leu, Ile, Val, Phe or Trp). The activity of

homodipeptide Me esters depended on the nature of the amino acid, as indicated by the following series: Phe-Phe-OMe > Val-Val-OMe > Leu-Leu-OMe > Trp-Trp-OMe > Ile-Ile-OMe. The nature of the amino acids in Leu-X-OMe and X-Leu-OMe was relatively unimportant when X was Phe, Trp or Val. However, when X was Ala or Gly, Leu-X-OMe was several-fold more active than X-Leu-OMe. A similar preference for the more hydrophobic residue in the amino terminal position was also found in esters containing a single phenylalanine or valine. Protection of the amino group by benzyloxycarbonyl (Z) or t-butyloxycarbonyl (BOC) substituents markedly enhanced the activity of the esters. An-mPhe-Gly-OEt, a retro-inverso analog of Bz-Phe-Gly-OEt, was several-fold more active than the parent compound. Selected esters were assayed on infected macrophages and concns. that induced minimal toxicity to the host cells were estimated. The ED50s for intracellular parasites were 1.5 to 5-fold higher than those for isolated amastigotes. Therapeutic ratios (concentration for detectable toxicity for macrophages/ED90) ranged from 1.6 (for Z-Leu-Gly-OMe) to 8 (for Val-Val-OMe).

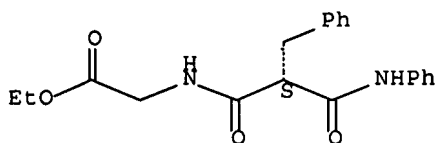
IT 129279-73-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(antileishmanial activity of, on Leishmania amazonensis amastigotes, structure in relation to)

RN 129279-73-8 CAPLUS

CN Glycine, N-[1,3-dioxo-3-(phenylamino)-2-(phenylmethyl)propyl]-, ethyl ester, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L53 ANSWER 38 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1989:154893 CAPLUS Full-text

DOCUMENT NUMBER: 110:154893

TITLE: Preparation and testing of arylalanylhistidineamides as renin inhibitors

INVENTOR(S): Nakano, Kohji; Fujikura, Takashi; Hara, Ryuichiro; Ichihara, Masato; Fukunaga, Yikiko; Shibasaki, Masayuki

PATENT ASSIGNEE(S): Yamanouchi Pharmaceutical Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 48 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

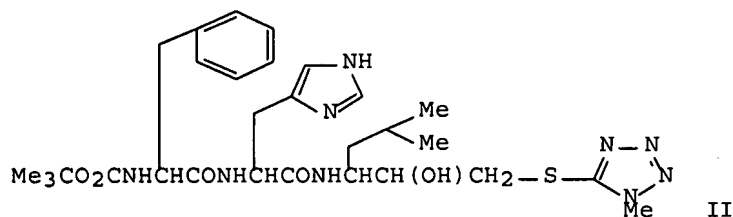
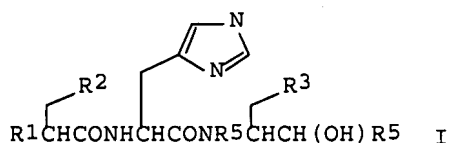
| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| EP 281316   | A2   | 19880907 | EP 1988-301609  | 19880225 |
| EP 281316   | A3   | 19900816 |                 |          |
| R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE |      |          |                 |          |
| FI 8800734  | A    | 19880828 | FI 1988-734     | 19880217 |
| FI 89058  | B    | 19930430 |                 |          |

|             |    |          |                |          |
|-------------|----|----------|----------------|----------|
| FI 89058    | C  | 19930810 |                |          |
| US 4904660  | A  | 19900227 | US 1988-160173 | 19880225 |
| NO 8800851  | A  | 19880829 | NO 1988-851    | 19880226 |
| JP 02009865 | A  | 19900112 | JP 1988-43630  | 19880226 |
| CA 1325497  | C  | 19931221 | CA 1988-560029 | 19880226 |
| AU 8812502  | A  | 19880901 | AU 1988-12502  | 19880229 |
| AU 612626   | B2 | 19910718 |                |          |

PRIORITY APPLN. INFO.:

|                |   |          |
|----------------|---|----------|
| JP 1987-46454  | A | 19870227 |
| JP 1987-115144 | A | 19870512 |
| JP 1987-206146 | A | 19870818 |
| JP 1987-289017 | A | 19871116 |

OTHER SOURCE(S): CASREACT 110:154893; MARPAT 110:154893  
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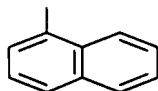
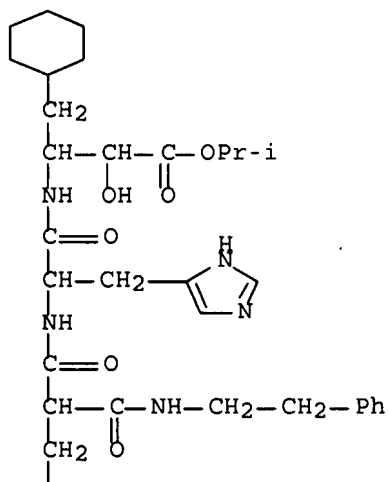
AB The title compds. [I; R1 = alkoxy-carbonyl, alkoxy-carbonylamino, (substituted) alkyl, etc.; R2 = Ph, naphthyl; R3 = C1-6 alkyl, cyclohexyl, Ph; R4 = O2NCH2, alkoxy-carbonyl, CH2S(O)nR6; R5 = H, C1-6 alkyl; R6 = (substituted) heterocyclyl; n = 0-2] useful as renin inhibitors, were prepared BOC-Phe-His-NHNH2 in DMF at -10° was treated with HCl/dioxane/isoamyl nitrite; the mixture was stirred 30 min at -30° and N-methylmorpholine was added. 3-Amino-5-methyl-1-(1-methyl-5-tetrazolylthio)-2-hexanol in DMF was added and the mixture was kept overnight in a cold room to give peptide derivative II. I inhibited human plasma renin with IC50 values of 5 + 10-10 to 4 + 10-9 M.

IT 119832-39-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(preparation of, as renin inhibitor)

RN 119832-39-2 CAPLUS

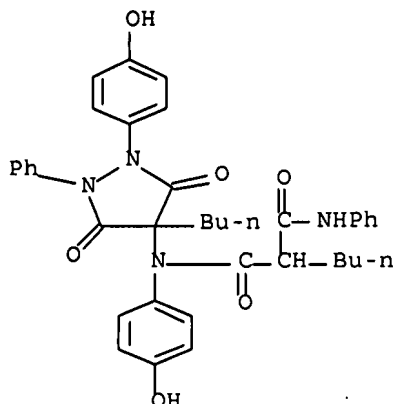
CN L-Histidinamide, 2-(1-naphthalenylmethyl)-3-oxo-N-(2-phenylethyl)-β-alanyl-N-[1-(cyclohexylmethyl)-2-hydroxy-3-(1-methylethoxy)-3-oxopropyl]-(9CI) (CA INDEX NAME)



L53 ANSWER 39 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1986:412218 CAPLUS Full-text  
 DOCUMENT NUMBER: 105:12218  
 TITLE: Stability-indicating assay for oxyphenbutazone. Part II. High-performance liquid chromatographic determination of oxyphenbutazone and its degradation products  
 AUTHOR(S): Fabre, Huguet; Ramiamana, Andrianandrasana; Blanchin, Marie Dominique; Mandrou, Bernadette  
 CORPORATE SOURCE: Lab. Chim. Anal., Fac. Pharm., Montpellier, 34060, Fr.  
 SOURCE: Analyst (Cambridge, United Kingdom) (1986), 111(2), 133-7  
 CODEN: ANALAO; ISSN: 0003-2654  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB An HPLC method is proposed for the simultaneous determination of oxyphenbutazone (I) [129-20-4] and 6 potential decomposition products, using a reversed-phase column and UV detection. The method is more sensitive than thin-layer chromatog. and allows the determination of 0.1% of each degradation product (with respect to I). It was applied to the anal. of com. tablets, capsules, and ointments.  
 IT 102712-77-6  
 RL: ANT (Analyte); ANST (Analytical study)  
 (determination of, in presence of oxyphenbutazone, in pharmaceuticals by HPLC)  
 RN 102712-77-6 CAPLUS



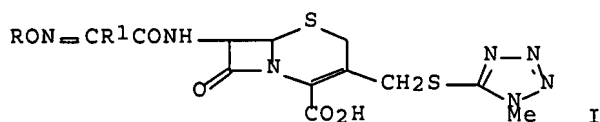
CN Propanediamide, 2-butyl-N-[4-butyl-1-(4-hydroxyphenyl)-3,5-dioxo-2-phenyl-4-pyrazolidinyl]-N-(4-hydroxyphenyl)-N'-phenyl- (9CI) (CA INDEX NAME)



L53 ANSWER 40 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1984:510633 CAPLUS Full-text  
 DOCUMENT NUMBER: 101:110633  
 TITLE: Cephalosporins  
 INVENTOR(S): Engel Masoliver, Carlos; Inchaurredo Lasagaboster, Fermin  
 PATENT ASSIGNEE(S): Laboratorios Fher S. A., Spain  
 SOURCE: Span., 13 pp.  
 CODEN: SPXXAD  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Spanish  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| ES 518223              | A1   | 19840116 | ES 1982-518223  | 19821215 |
| PRIORITY APPLN. INFO.: |      |          | ES 1982-518223  | 19821215 |

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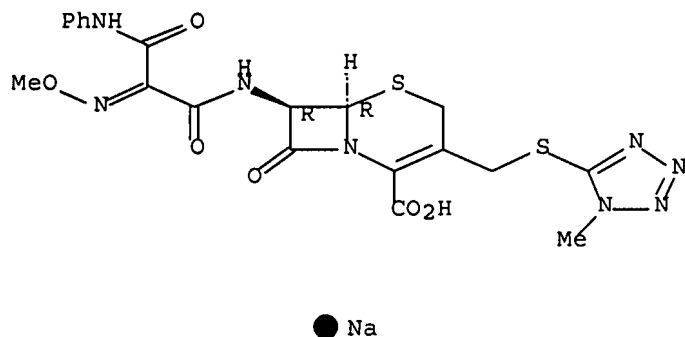
AB Cephalosporins I (R = alkyl; R1 = cyano, carbamoyl, alkoxy carbonyl) were prepared. Thus, MeO2CCH2CONPh was converted to MeO2CC(:NOH)CONHPh which was methylated and hydrolyzed to give HO2CC(:NOMe)CONHPh (II). I (R = Me, R1 = CONPh) was obtained by acylating the aminocephem with II.  
 IT 91530-42-6P 91530-43-7P 91530-47-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 91530-42-6 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
7-[[2-(methoxyimino)-1,3-dioxo-3-(phenylamino)propyl]amino]-3-[[[(1-methyl-1H-tetrazol-5-yl)thio]methyl]-8-oxo-, monosodium salt, (6R-trans)- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

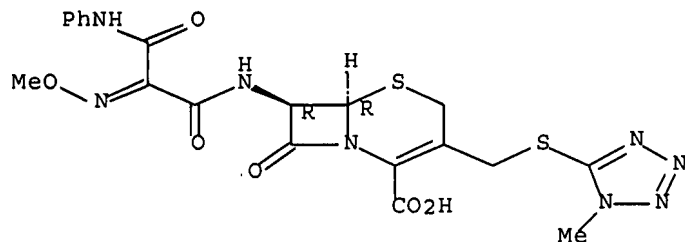


RN 91530-43-7 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
7-[[2-(methoxyimino)-1,3-dioxo-3-(phenylamino)propyl]amino]-3-[[[(1-methyl-1H-tetrazol-5-yl)thio]methyl]-8-oxo-, (6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

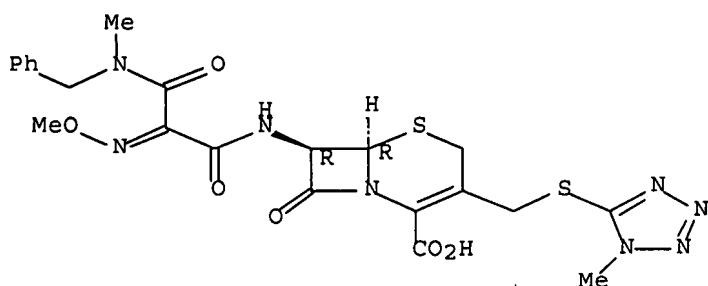


RN 91530-47-1 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
7-[[2-(methoxyimino)-3-[methyl(phenylmethyl)amino]-1,3-dioxopropyl]amino]-3-[[[(1-methyl-1H-tetrazol-5-yl)thio]methyl]-8-oxo-, (6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.



L53 ANSWER 41 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1984:34336 CAPLUS Full-text  
 DOCUMENT NUMBER: 100:34336  
 TITLE: Cephalosporin ethers  
 INVENTOR(S): Scartazzini, Riccardo; Bickel, Hans  
 PATENT ASSIGNEE(S): Ciba-Geigy Corp. , USA  
 SOURCE: U.S., 41 pp. Cont.-in-part of U.S. Ser. No. 373,818,  
 abandoned.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

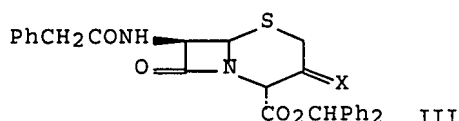
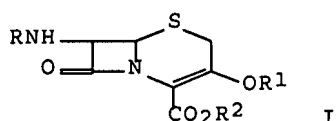
| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| US 4405778 | A    | 19830920 | US 1976-657904  | 19760213 |
| CH 587268  | A5   | 19770429 | CH 1972-9788    | 19720629 |
| CH 603666  | A5   | 19780831 | CH 1977-1154    | 19720629 |
| CH 605987  | A5   | 19781013 | CH 1972-18722   | 19721222 |
| CH 605988  | A5   | 19781013 | CH 1973-2655    | 19730223 |
| ZA 7304050 | A    | 19740529 | ZA 1973-4050    | 19730614 |
| SU 542474  | A3   | 19770105 | SU 1973-1940203 | 19730627 |
| SU 677662  | A3   | 19790730 | SU 1973-1943362 | 19730627 |
| AT 7305696 | A    | 19750815 | AT 1973-5696    | 19730628 |
| AT 329745  | B    | 19760525 |                 |          |
| ES 416411  | A1   | 19760516 | ES 1973-416411  | 19730628 |
| ES 416412  | A1   | 19760516 | ES 1973-416412  | 19730628 |
| ES 416413  | A1   | 19761116 | ES 1973-416413  | 19730628 |
| HU 172459  | B    | 19780928 | HU 1973-CI1599  | 19730628 |
| PL 93779   | B1   | 19770630 | PL 1973-163718  | 19730629 |
| PL 104396  | B1   | 19790831 | PL 1973-173571  | 19730629 |
| PL 116789  | B1   | 19810630 | PL 1973-163715  | 19730629 |
| NO 7500055 | A    | 19740103 | NO 1975-55      | 19750108 |
| ES 442262  | A1   | 19770701 | ES 1975-442262  | 19751031 |
| CH 597241  | A5   | 19780331 | CH 1976-5624    | 19760505 |
| FI 7902808 | A    | 19790910 | FI 1979-2808    | 19790910 |
| FI 64941   | B    | 19831031 |                 |          |
| FI 64941   | C    | 19840210 |                 |          |

PRIORITY APPLN. INFO.:

|                |    |          |
|----------------|----|----------|
| CH 1972-9788   | A  | 19720629 |
| CH 1972-12195  | A  | 19720817 |
| CH 1972-18722  | A  | 19721222 |
| CH 1973-2655   | A  | 19730223 |
| US 1973-373818 | A2 | 19730626 |
| CH 1972-2655   | A  | 19730223 |

|              |            |
|--------------|------------|
| CH 1973-7388 | A 19730523 |
| FI 1973-1751 | A 19730530 |
| NO 1973-2683 | A 19730628 |
| CH 1976-5624 | A 19760505 |

OTHER SOURCE(S): MARPAT 100:34336  
GI



AB Cephalosporins I (R = acyl; R1 = alkyl; R2 = ester group) were prepared Thus, I (R = PhCH2CO, R1 = Me, R2 = CHPh2) (II) was prepared by ozonolysis of III (X = CH2) and methylation of the resulting mixture of III (X = O) and its 1-oxide. III (X = CH2) was prepared from Na 7- phenylacetamidocephalosporanate by deacetylation, esterification, iodination, and deiodination. II was deacylated, hydrolyzed to the acid, and reacylated to give numerous acyl derivs.

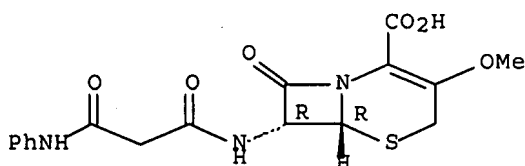
IT 51803-52-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 51803-52-2 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
7-[[1,3-dioxo-3-(phenylamino)propyl]amino]-3-methoxy-8-oxo-, (6R-trans)-  
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L53 ANSWER 42 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1983:558866 CAPLUS Full-text

DOCUMENT NUMBER: 99:158866

TITLE: Amino acid derivatives and their therapeutic use

INVENTOR(S): Roques, Bernard; Schwart, Jean Charles; Lecomte, Jeanne Marie

PATENT ASSIGNEE(S): Fr.

SOURCE: Eur. Pat. Appl., 105 pp.

CODEN: EPXXDW

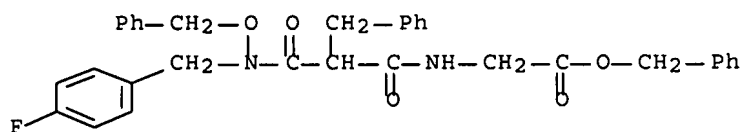
DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

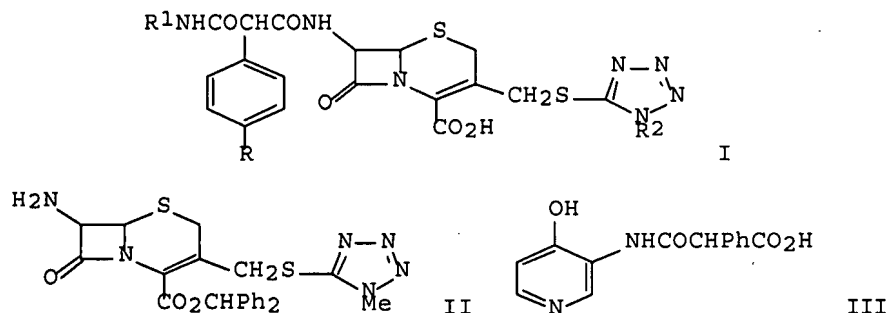
| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE        |
|--|------|----------|-----------------|-------------|
| EP 82088   | A1   | 19830622 | EP 1982-402314  | 19821216    |
| EP 82088   | B1   | 19860402 |                 |             |
| R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE  |      |          |                 |             |
| FR 2518088   | A1   | 19830617 | FR 1981-23488   | 19811216    |
| FR 2518088   | B1   | 19871127 |                 |             |
| JP 58150547  | A    | 19830907 | JP 1982-221060  | 19821216    |
| JP 03046463  | B    | 19910716 |                 |             |
| AT 18902   | T    | 19860415 | AT 1982-402314  | 19821216    |
| US 4618708   | A    | 19861021 | US 1985-715764  | 19850325    |
| US 4738803   | A    | 19880419 | US 1986-900814  | 19860822    |
| PRIORITY APPLN. INFO.:   |      |          | FR 1981-23488   | A 19811216  |
|  |      |          | US 1982-449687  | A1 19821214 |
|  |      |          | EP 1982-402314  | A 19821216  |
|  |      |          | US 1985-715764  | A3 19850325 |
| OTHER SOURCE(S): CASREACT 99:158866; MARPAT 99:158866  |      |          |                 |             |
| AB R-X-Y-Z-CHR1COR2 [R = phosphono, sulfo, amino, carbamoyl, alkyl; X = CH(CH2)nR3 (n = 0-2; R3 = H, (un)substituted alkyl, Ph, naphthyl, cyclohexyl, thienyl, etc.), C:CHR3; Y = CO, NH, CH2CO; Z = CO, NR4 (R4 = alkyl, R1R4 = a ring); R1 = H or (un)substituted alkyl or Ph; R2 = OH or (un)substituted alkyl, phenoxy, amino, etc.] were prepared (101 compds. claimed). Thus, reaction of PhCH2CHBrCO2H with PhCH2ONH2, followed by formylation and coupling with glycine benzyl ester tosylate gave PhCH2ON(CHO)CH(CH2Ph)CO-Gly-OCH2Ph. The products are useful as enkephalinase inhibitors, analgesics, antidepressants, antidiuretics, and hypotensives. Thus, HON(CHO)CH2CH(CH2Ph)CO-Gly-NHCH2C6H4F-p was an effective analgesic, countering the effects of phenylbenzoquinone at 1 mg/kg i.v. |      |          |                 |             |
| IT 87438-32-2P   |      |          |                 |             |
| RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and hydrogenolysis of)  |      |          |                 |             |
| RN 87438-32-2 CAPLUS   |      |          |                 |             |
| CN Glycine, N-[N-[(4-fluorophenyl)methyl]-3-oxo-N-(phenylmethoxy)-2-(phenylmethyl)-β-alanyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)  |      |          |                 |             |



L53 ANSWER 43 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1982:562688 CAPLUS Full-text  
 DOCUMENT NUMBER: 97:162688  
 TITLE: Cephalosporins  
 PATENT ASSIGNEE(S): Yamanouchi Pharmaceutical Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|------|-----------------|------|
|------------|------|------|-----------------|------|

|                        |                    |          |                |          |
|------------------------|--------------------|----------|----------------|----------|
| JP 57080390            | A                  | 19820519 | JP 1980-155394 | 19801105 |
| PRIORITY APPLN. INFO.: |                    |          | JP 1980-155394 | 19801105 |
| OTHER SOURCE(S):       | CASREACT 97:162688 |          |                |          |
| GI                     |                    |          |                |          |



AB Antibiotics I [R = H, OH; R1 = (substituted) Ph, pyridyl, pyrimidyl, quinolinyl; R2 = alkyl] were prepared by, e.g., acylation of II. Thus, stirring 136 mg III with 250 mg II in DMF containing dicyclohexylcarbodiimide at room temperature for 1 h gave 193 mg I (R = H, R1 = 4-hydroxy-3-pyridyl, R2 = Me) benzhydryl ester, which on hydrolysis gave 136 mg I (R = H, R1 = 4-hydroxy-3-pyridyl, R2 = Me). Min. inhibition concns. are given for I against *Escherichia coli*, *Proteus mirabilis*, *Serratia marcescens* and *Staphylococcus aureus*.

IT 83255-30-5P 83255-37-2P

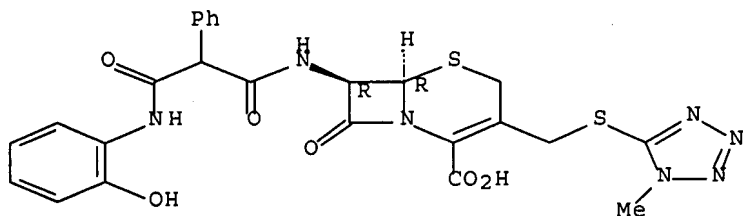
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation and antibacterial activity of)

RN 83255-30-5 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[3-[(2-hydroxyphenyl)amino]-1,3-dioxo-2-phenylpropyl]amino]-3-[[1-methyl-1H-tetrazol-5-yl]thio]methyl]-8-oxo-, [6R-(6 $\alpha$ ,7 $\beta$ )]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

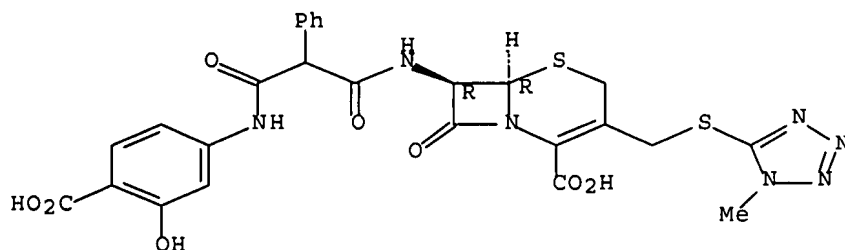


RN 83255-37-2 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[3-[(4-carboxy-3-hydroxyphenyl)amino]-1,3-dioxo-2-phenylpropyl]amino]-3-[[1-methyl-1H-tetrazol-5-yl]thio]methyl]-8-oxo-, [6R-(6 $\alpha$ ,7 $\beta$ )]-

(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L53 ANSWER 44 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1982:402717 CAPLUS Full-text

DOCUMENT NUMBER: 97:2717

TITLE: Potent cephalosporinase inhibitors:

7 $\beta$ -[2-(1,3-dithiolan-2-ylidene)acetamido]cephalosporins and related compounds

AUTHOR(S): Ohya, Satoshi; Miyadera, Tetsuo; Yamazaki, Mitsuo

CORPORATE SOURCE: Biol. Res. Lab., Sankyo Co., Ltd., Tokyo, 140, Japan

SOURCE: Antimicrobial Agents and Chemotherapy (1982), 21(4), 613-17

CODEN: AMACCQ; ISSN: 0066-4804

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Cephalosporins possessing a 1,3-dithiolane, 1,3-dithiane, or 1,3-dithietane ring on their 7 $\beta$ -substituents showed potent inhibitory activity against cephaloridine hydrolysis by cephalosporinases purified from *Proteus morganii*, *P. rettgeri*, and *P. inconstans*, which were not inhibited by clavulanic acid, a well-known  $\beta$ -lactamase inhibitor. The mode of inhibition was competitive. The dithiolane cephalosporins themselves were stable against hydrolysis by the  $\beta$ -lactamases tested. A combination of a dithiolane cephalosporin and cephaloridine synergistically inhibited in vitro growth of strains of *P. morganii*, *P. rettgeri*, *P. inconstans*, *Enterobacter aerogenes*, *E. cloacae*, and *Serratia marcescens*.

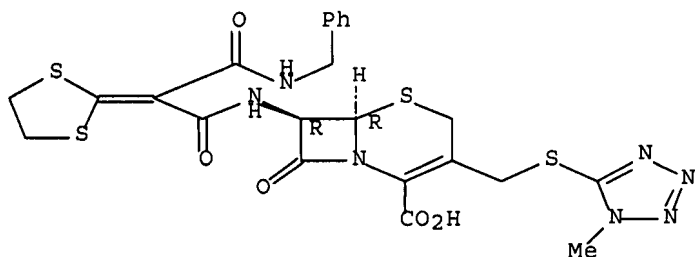
IT 81948-88-1

RL: BIOL (Biological study)  
(cephalosporinase inhibition by)

RN 81948-88-1 CAPLUS

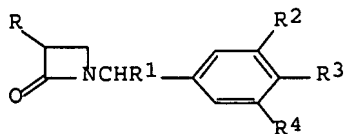
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
7-[[2-(1,3-dithiolan-2-ylidene)-1,3-dioxo-3-[(phenylmethyl)amino]propyl]amino]-3-[[[(1-methyl-1H-tetrazol-5-yl)thio]methyl]-8-oxo-, (6R-trans)- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



L53 ANSWER 45 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1981:65461 CAPLUS Full-text  
 DOCUMENT NUMBER: 94:65461  
 TITLE: 4-Unsubstituted azetidinone derivatives  
 INVENTOR(S): Hashimoto, Masashi; Hemmi, Keiji; Kamiya, Takashi;  
 Komori, Tadaaki; Nakaguti, Osamu; Saito, Yoshihisa;  
 Shiokawa, Youichi; Takasugi, Hisahi; Takaya, Takao;  
 Teraji, Tsutomu  
 PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan  
 SOURCE: U.S., 130 pp. Cont.-in-part of U.S. Ser. No. 694,891,  
 abandoned.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.             | KIND                               | DATE     | APPLICATION NO. | DATE        |
|------------------------|------------------------------------|----------|-----------------|-------------|
| US 4207234             | A                                  | 19800610 | US 1977-858375  | 19771207    |
| US 4472300             | A                                  | 19840918 | US 1980-130205  | 19800313    |
| PRIORITY APPLN. INFO.: |                                    |          | US 1975-593668  | A2 19750707 |
|                        |                                    |          | US 1976-694891  | A2 19760610 |
|                        |                                    |          | US 1977-858375  | A3 19771207 |
| OTHER SOURCE(S):       | CASREACT 94:65461; MARPAT 94:65461 |          |                 |             |
| GI                     |                                    |          |                 |             |



I

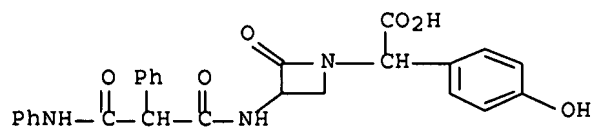
AB Lactacillanic acids and analogs I (R = NH<sub>2</sub>, acylamino, benzenesulfonamido; R<sub>1</sub> = CO<sub>2</sub>H, pharmaceutically acceptable salt or ester derivative of CO<sub>2</sub>H; R<sub>2</sub> = H, NH<sub>2</sub>, NO<sub>2</sub>, halo, alkoxy, alkylthio; R<sub>3</sub> = H, OH, alkyl, alkylthio, OCH<sub>2</sub>Ph; R<sub>4</sub> = H, Halo, alkoxy, alkylthio), which showed bactericidal activity, were prepared Thus, 3-aminolactacillanic acid reacted with PhCH<sub>2</sub>COCl in water-Me<sub>2</sub>CO containing NaHCO<sub>3</sub> to yield I (R = PhCH<sub>2</sub>CONH, R<sub>1</sub> = CO<sub>2</sub>H, R<sub>3</sub> = OH, R<sub>2</sub> = R<sub>4</sub> = H).  
 IT 59510-12-2P 59510-40-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)



(preparation of)

RN 59510-12-2 CAPLUS

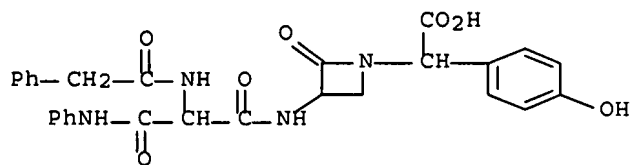
CN 1-Azetidineacetic acid, 3-[[1,3-dioxo-2-phenyl-3-(phenylamino)propyl]amino]- $\alpha$ -(4-hydroxyphenyl)-2-oxo-, monosodium salt (9CI) (CA INDEX NAME)



● Na

RN 59510-40-6 CAPLUS

CN 1-Azetidineacetic acid, 3-[[1,3-dioxo-2-[(phenylacetyl)amino]-3-(phenylamino)propyl]amino]- $\alpha$ -(4-hydroxyphenyl)-2-oxo-, monosodium salt (9CI) (CA INDEX NAME)



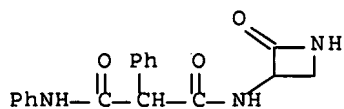
● Na

IT 75263-61-5

RL: RCT (Reactant); RACT (Reactant or reagent)  
(N-alkylation of)

RN 75263-61-5 CAPLUS

CN Propanediamide, N-(2-oxo-3-azetidiny)-N',2-diphenyl- (9CI) (CA INDEX NAME)



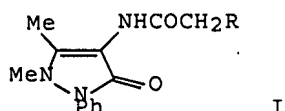
L53 ANSWER 46 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1979:405150 CAPLUS Full-text

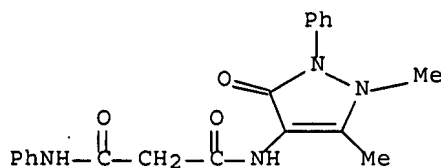
DOCUMENT NUMBER: 91:5150

TITLE: Synthesis of 4-(N-substituted-carbamoylacetylamido)phenazones, 4-(substituted-

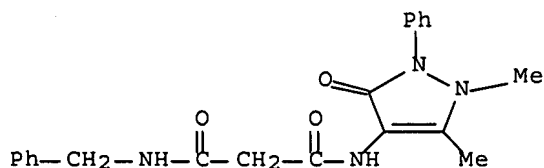
AUTHOR(S): hydrazidocarbonylacetamido)phenazones and  
 N1-(4-phenazonylcarbamoylacetyl)-N2-aroylehydrazines  
 Abou-Ouf, A. A.; Farghaly, A. M.; El-Kerdawy, M. M.;  
 Massoud, A.  
 CORPORATE SOURCE: Fac. Pharm., Univ. Mansoura, Mansoura, Egypt  
 SOURCE: Indian Journal of Chemistry, Section B: Organic  
 Chemistry Including Medicinal Chemistry (1978),  
 16B(11), 989-91  
 CODEN: IJSBDB; ISSN: 0376-4699  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



AB 4-Malonamidophenazone Et ester I (R = CO<sub>2</sub>Et) (II), prepared by the hydrolysis  
 of 4-(2-cyanoacetamido)phenazone I (R = CN) followed by esterification,  
 underwent condensation with R<sub>1</sub>NH<sub>2</sub> (R<sub>1</sub> = H, Me, Et, Pr, Ph, PhCH<sub>2</sub> 4-EtOC<sub>6</sub>H<sub>4</sub>)  
 gave I (R = CONHR<sub>1</sub>). The hydrazide I (R = CONHNH<sub>2</sub>) (III), prepared by the  
 reaction of H<sub>2</sub>NNH<sub>2</sub> on II, reacts with R<sub>2</sub>COR<sub>3</sub> (R<sub>2</sub> = H, Me; R<sub>3</sub> = Ph, substituted  
 Ph) to give I (R = CONHN:CR<sub>2</sub>R<sub>3</sub>). The reaction of III with R<sub>4</sub>Cl (R<sub>4</sub> = Bz,  
 PhSO<sub>2</sub>, etc.) in pyridine or C<sub>6</sub>H<sub>6</sub>-Et<sub>3</sub>N gives the corresponding aroylehydrazines  
 I (R = CONHNHR<sub>4</sub>). Preliminary pharmacol. screening shows promising results.  
 IT 70373-56-7P 70373-57-8P 70373-58-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 70373-56-7 CAPLUS  
 CN Propanediamide, N-(2,3-dihydro-1,5-dimethyl-3-oxo-2-phenyl-1H-pyrazol-4-  
 yl)-N'-phenyl- (9CI) (CA INDEX NAME)

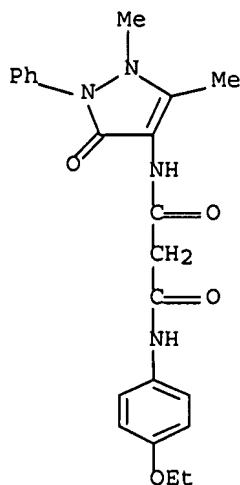


RN 70373-57-8 CAPLUS  
 CN Propanediamide, N-(2,3-dihydro-1,5-dimethyl-3-oxo-2-phenyl-1H-pyrazol-4-  
 yl)-N'-(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 70373-58-9 CAPLUS

CN Propanediamide, N-(2,3-dihydro-1,5-dimethyl-3-oxo-2-phenyl-1H-pyrazol-4-yl)-N'-(4-ethoxyphenyl)- (9CI) (CA INDEX NAME)



L53 ANSWER 47 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1979:152207 CAPLUS Full-text

DOCUMENT NUMBER: 90:152207

TITLE: Enol ethers of 7-β-aminocephem-3-ol-4-carboxylic acid derivatives

INVENTOR(S): Scartazzini, Riccardo; Bickel, Hans

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.

SOURCE: Patentschrift (Switz.), 31 pp. Addn. to Swiss 587,268.  
CODEN: SWXXAS

DOCUMENT TYPE: Patent

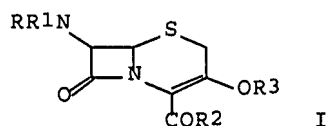
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
| CH 605989              | A5   | 19781013 | CH 1973-7387    | 19730523   |
| PRIORITY APPLN. INFO.: |      |          | CH 1973-7387    | A 19730523 |

GI



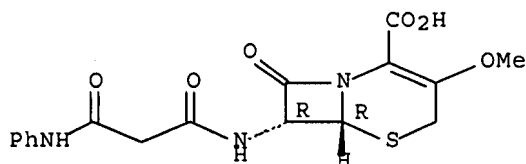
AB The title ethers I [R = NH<sub>2</sub>-protecting group; R<sub>1</sub> = H, acyl; RR<sub>1</sub> = bivalent protective group; R<sub>2</sub> = CO<sub>2</sub>H-protecting group; R<sub>3</sub> = (substituted) hydrocarbon group] and their 1-oxides and salts were prepared by the reaction of I (R<sub>3</sub> = H) or the corresponding ketone with an ester of R<sub>3</sub>OH with H<sub>2</sub>SO<sub>4</sub>, halosulfonic acid or haloalkanesulfonic acid. Thus, I (R = Me<sub>3</sub>CO<sub>2</sub>CCHPhCO, R<sub>1</sub> = R<sub>3</sub> = H, R<sub>2</sub> = OCHPh<sub>2</sub>) reacted with F<sub>3</sub>CSO<sub>3</sub>Me in CH<sub>2</sub>Cl<sub>2</sub> to give I (R-R<sub>2</sub> = same, R<sub>3</sub> = Me).

IT 51803-52-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 51803-52-2 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
 7-[[1,3-dioxo-3-(phenylamino)propyl]amino]-3-methoxy-8-oxo-, (6R-trans)-  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L53 ANSWER 48 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1978:500769 CAPLUS Full-text

DOCUMENT NUMBER: 89:100769

TITLE: Synthesis for preparation of  $\alpha$ -carboxyl and  
 $\alpha$ -carboxy-amido penicillanic and cephalosporanic  
 acid derivatives

AUTHOR(S): Huhn, Magda; Dvortsak, Peter; Zalantai, Livia

CORPORATE SOURCE: Chinoin Chem. and Pharm. Works Ltd., Budapest, Hung.

SOURCE: Curr. Chemother., Proc. Int. Congr. Chemother., 10th  
 (1978), Meeting Date 1977, Volume 1, 569-72.  
 Editor(s): Siegenthaler, Walter; Luethy, Ruedi. Am.  
 Soc. Microbiol.: Washington, D. C.  
 CODEN: 37XLA2

DOCUMENT TYPE: Conference

LANGUAGE: English

AB A series of the title derivs. was prepared and tested in vitro for  
 antimicrobial activity. Most derivs. acylated with malonic acids and with  
 hemianilides of phenylmalonic acid showed remarkable activity against  
 Mycobacterium tuberculosis, and gram.-pos. and -neg. microorganisms. In vivo,  
 however, none of the test compds. significantly prolonged the survival time of  
 mice infected i.v. with mycobacteria, even after administration of s.c. doses  
 of 200 mg/kg over 10 days.

IT 60657-76-3 67371-57-7 67371-58-8

67371-59-9 67371-60-2

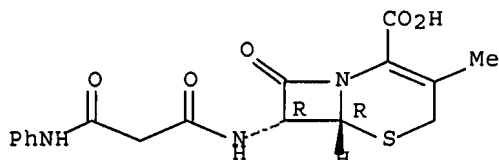
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(tuberculostatic activity of)

RN 60657-76-3 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
7-[[1,3-dioxo-3-(phenylamino)propyl]amino]-3-methyl-8-oxo-, (6R-trans)-  
(9CI) (CA INDEX NAME)

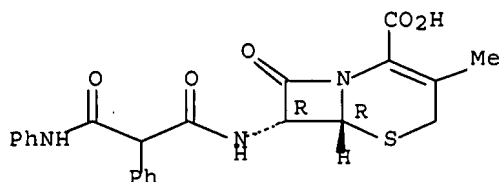
Absolute stereochemistry.



RN 67371-57-7 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
7-[[1,3-dioxo-2-phenyl-3-(phenylamino)propyl]amino]-3-methyl-8-oxo-,  
[6R-(6 $\alpha$ ,7 $\beta$ )]- (9CI) (CA INDEX NAME)

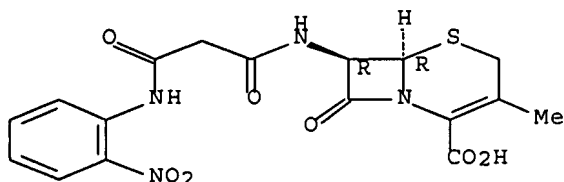
Absolute stereochemistry.



RN 67371-58-8 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
3-methyl-7-[[3-[(2-nitrophenyl)amino]-1,3-dioxopropyl]amino]-8-oxo-,  
(6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

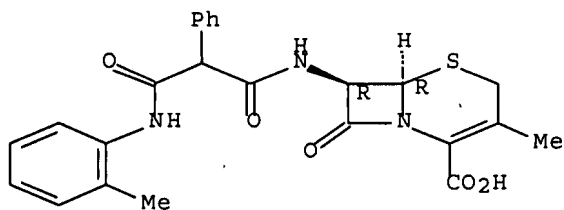


RN 67371-59-9 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,

3-methyl-7-[[3-[(2-methylphenyl)amino]-1,3-dioxo-2-phenylpropyl]amino]-8-oxo-, [6R-(6 $\alpha$ ,7 $\beta$ )]- (9CI) (CA INDEX NAME)

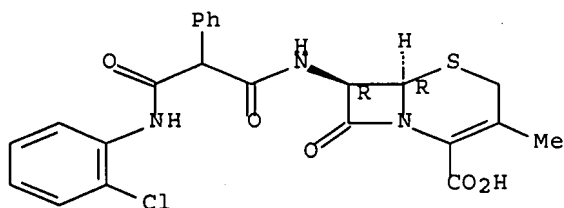
Absolute stereochemistry.



RN 67371-60-2 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
7-[[3-[(2-chlorophenyl)amino]-1,3-dioxo-2-phenylpropyl]amino]-3-methyl-8-oxo-, [6R-(6 $\alpha$ ,7 $\beta$ )]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L53 ANSWER 49 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1978:27732 CAPLUS Full-text

DOCUMENT NUMBER: 88:27732

TITLE: 4-Hydroxyphenylbutazone: a potentially immunogenic  
contaminant of phenylbutazone preparations

AUTHOR(S): Bundgaard, Hans

CORPORATE SOURCE: Dep. Pharm., R. Dan. Sch. Pharm., Copenhagen, Den.

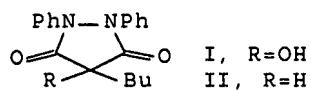
SOURCE: Archiv for Pharmaci og Chemi, Scientific Edition  
(1977), 5(4), 87-96

CODEN: AVPCCS; ISSN: 0302-248X

DOCUMENT TYPE: Journal

LANGUAGE: English

GI





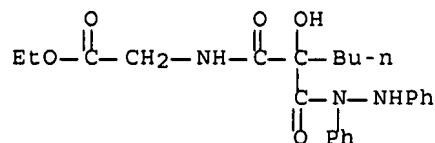
butyltartronic acid mono-N,N'-diphenylhydrazide amides  
[RNHCOC(Bu)(OH)CONPhNHPh]. An irreversible reaction with serum albumin took place at alkaline pH. The contaminant reacted .apprx.25-fold more readily with glycylglycine [556-50-3] than benzylpenicillin and was potentially an immunogenic substance, possibly involved in clin. allergic reactions to I prepsns.

IT 64725-03-7

RL: BIOL (Biological study)  
(as hydroxyphenylbutazone aminolysis product, in phenylbutazone pharmaceuticals)

RN 64725-03-7 CAPLUS

CN Hexanoic acid, 2-[[[(2-ethoxy-2-oxoethyl)amino]carbonyl]-2-hydroxy-, 1,2-diphenylhydrazide (9CI) (CA INDEX NAME)



L53 ANSWER 51 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1977:535287 CAPLUS Full-text

DOCUMENT NUMBER: 87:135287

TITLE: Acylation of 6-aminopenicillanic acid, 7-aminocephalosporanic acid, and 7-aminodeacetoxycephalosporanic acid and their derivatives

INVENTOR(S): Diago Meseguer, Jose; Fernandez Lizarbe, Jose Ramon; Palomo Coll, Antonio Luis; Zugaza Bilbao, Alvaro

PATENT ASSIGNEE(S): Gema S. A., Spain; Antibioticos S. A.

SOURCE: Ger. Offen., 31 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

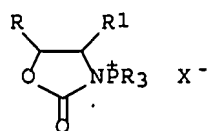
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
| -----                  | ---- | -----    | -----           | -----      |
| DE 2701751             | A1   | 19770721 | DE 1977-2701751 | 19770118   |
| ES 444470              | A1   | 19770516 | ES 1976-444470  | 19760120   |
| NL 7700570             | A    | 19770722 | NL 1977-570     | 19770120   |
| PRIORITY APPLN. INFO.: |      |          | ES 1976-444470  | A 19760120 |

GI



I



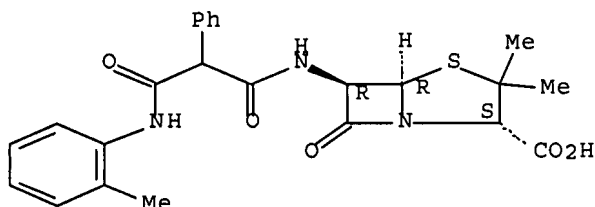
AB The title acids were acylated with 2,5-(O<sub>2</sub>N)<sub>2</sub>C<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H, thienylacetic acid, PhCHClCO<sub>2</sub>H, N<sub>3</sub>CHPhCO<sub>2</sub>H, etc; by preparing a salt of the acylating acid with an organic base, e.g., Et<sub>3</sub>N, which was treated with I (R = Cl, Br, Me<sub>2</sub>N, R = R<sub>1</sub> = H, Me; X = Br, Cl) to give a mixture of active species with varying content of acid chloride, N-acyl-2-oxazolidinone, and 2-acyloxy-Δ<sup>2</sup>-oxazoline. The title acids were then added to this mixture to give the N-acyl derivative

IT 34093-30-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 34093-30-6 CAPLUS

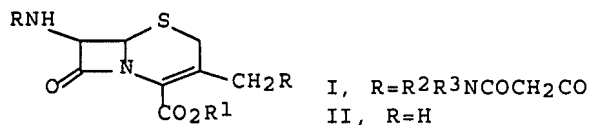
CN 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 3,3-dimethyl-6-[[3-[(2-methylphenyl)amino]-1,3-dioxo-2-phenylpropyl]amino]-7-oxo-, [2S-(2α,5α,6β)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L53 ANSWER 52 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1976:543125 CAPLUS Full-text  
 DOCUMENT NUMBER: 85:143125  
 TITLE: Cephalosporins  
 INVENTOR(S): Shibuya, Chisei; Ito, Hirataka; Usubuchi, Yutaka; Yamawaki, Naokuni; Ichikawa, Yasushi  
 PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.                   | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------------|------|----------|-----------------|------------|
| JP 51054578                  | A    | 19760513 | JP 1974-127562  | 19741107   |
| PRIORITY APPLN. INFO.:<br>GI |      |          | JP 1974-127562  | A 19741107 |



AB Cephalosporins I (R = H, OH, alkanoyloxy, quaternary ammonium, thiadiazolylthio, tetrazolylthio, etc.; R1 = H, alkyl, aralkyl, trisubstituted silyl, phenacyl, alkanoyloxymethyl, salt-forming ion, etc., or RR11 form a lactam ring; R2 and R3 = H, alkyl, aryl, aralkyl, heterocyclyl, alkoxy carbonyl, etc., or R2R3 = alkylene, alkenylene, but not R2 = H and R3 = aliphatic hydrocarbon group) were prepared by acylating II with acids R2R3NCOCH2CO2H or their reactive derivs. I are antibacterial agents (no data). Thus, 0.93 g PhNHCOCH2CO2H was treated with ClCO2Et and then with 1.33 g II (R = H, R1 = CMe3) and Et3N in CHCl3 to give 2.12 g I (R = R2 = H, R1 = CMe3, R3 = Ph). Deprotection with CF3CO2H gave I (R = R1 = R2 = H, R3 = Ph). Also prepared was I (R = OAc, R1 = H, R2 = Me, R3 = Ph).

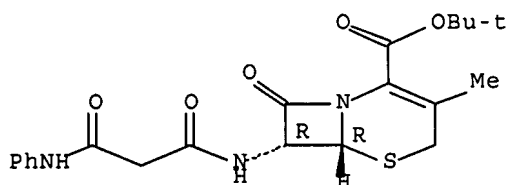
IT 60657-75-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and deprotection of)

RN 60657-75-2 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
7-[[1,3-dioxo-3-(phenylamino)propyl]amino]-3-methyl-8-oxo-,  
1,1-dimethylethyl ester, (6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



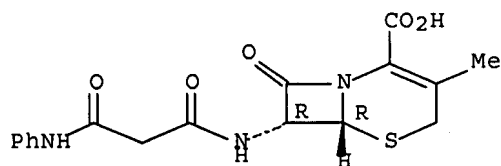
IT 60657-76-3P 60657-77-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 60657-76-3 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
7-[[1,3-dioxo-3-(phenylamino)propyl]amino]-3-methyl-8-oxo-, (6R-trans)-  
(9CI) (CA INDEX NAME)

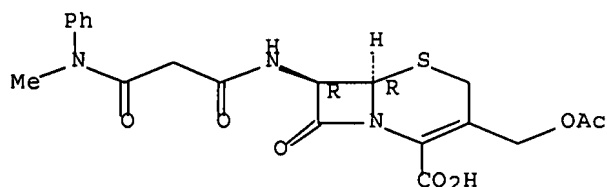
Absolute stereochemistry.



RN 60657-77-4 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid;  
3-[(acetyloxy)methyl]-7-[[3-(methylphenylamino)-1,3-dioxopropyl]amino]-8-  
oxo-, (6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



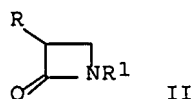
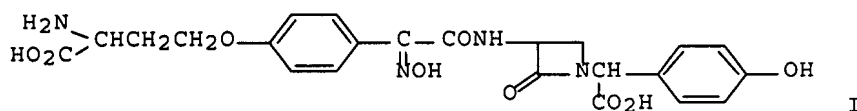
L53 ANSWER 53 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1976:421078 CAPLUS Full-text  
 DOCUMENT NUMBER: 85:21078  
 TITLE: Azetidinone derivatives  
 INVENTOR(S): Kamiya, Takashi; Yoshihisa, Takarazuka; Hashimoto, Masashi; Teraji, Tsutomu; Takaya, Takao; Komori, Tadaaki; Nakaguti, Osamu; Oku, Teruo; Shiokawa, Youichi; et al.  
 PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan  
 SOURCE: Ger. Offen., 318 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| DE 2529941  | A1   | 19760408 | DE 1975-2529941 | 19750704 |
| JP 51125061 | A    | 19761101 | JP 1974-77091   | 19740704 |
| JP 51125062 | A    | 19761101 | JP 1974-85526   | 19740724 |
| JP 51125064 | A    | 19761101 | JP 1974-88452   | 19740731 |
| JP 51075056 | A    | 19760629 | JP 1975-2650    | 19741223 |
| BE 830934   | A1   | 19760102 | BE 1975-157924  | 19750702 |
| CH 618161   | A5   | 19800715 | CH 1975-8634    | 19750702 |
| DK 7503023  | A    | 19760105 | DK 1975-3023    | 19750703 |
| FI 7501949  | A    | 19760105 | FI 1975-1949    | 19750703 |
| NO 7502419  | A    | 19760106 | NO 1975-2419    | 19750703 |
| FR 2278335  | A1   | 19760213 | FR 1975-20990   | 19750703 |
| FR 2278335  | B1   | 19821217 |                 |          |
| SE 428799   | B    | 19830725 | SE 1975-7683    | 19750703 |
| SE 428799   | C    | 19831103 |                 |          |
| NL 7508008  | A    | 19760106 | NL 1975-8008    | 19750704 |
| AU 7582778  | A    | 19770106 | AU 1975-82778   | 19750704 |
| ES 439134   | A1   | 19770301 | ES 1975-439134  | 19750704 |
| ZA 7504306  | A    | 19770525 | ZA 1975-4306    | 19750704 |
| GB 1519495  | A    | 19780726 | GB 1975-28394   | 19750704 |
| HU 172476   | B    | 19780928 | HU 1975-FU336   | 19750704 |
| AT 7505170  | A    | 19790715 | AT 1975-5170    | 19750704 |
| AT 355034   | B    | 19800211 |                 |          |
| CA 1063108  | A1   | 19790925 | CA 1975-230828  | 19750704 |
| AT 7806099  | A    | 19790915 | AT 1978-6099    | 19780822 |
| AT 7806098  | A    | 19800415 | AT 1978-6098    | 19780822 |
| AT 359514   | B    | 19801110 |                 |          |
| SE 7903460  | A    | 19790419 | SE 1979-3460    | 19790419 |
| SE 7903504  | A    | 19790420 | SE 1979-3504    | 19790420 |
| CH 637924   | A5   | 19830831 | CH 1980-5357    | 19800711 |

PRIORITY APPLN. INFO.:

|                |   |          |
|----------------|---|----------|
| JP 1974-77091  | A | 19740704 |
| JP 1974-85526  | A | 19740724 |
| JP 1974-88452  | A | 19740731 |
| JP 1975-2650   | A | 19741223 |
| JP 1974-100159 | A | 19740830 |
| JP 1974-101712 | A | 19740902 |
| JP 1974-102288 | A | 19740904 |
| JP 1974-136561 | A | 19741126 |
| JP 1974-138137 | A | 19741129 |
| JP 1975-3779   | A | 19741225 |
| JP 1975-1272   | A | 19741228 |
| JP 1975-16584  | A | 19750207 |
| JP 1975-18241  | A | 19750212 |
| JP 1974-30356  | A | 19750312 |
| JP 1975-30356  | A | 19750312 |
| JP 1975-32702  | A | 19750317 |
| JP 1975-32703  | A | 19750317 |
| JP 1975-33292  | A | 19750318 |
| JP 1975-34830  | A | 19750319 |
| JP 1975-33821  | A | 19750320 |
| JP 1975-33822  | A | 19750320 |
| CH 1975-8634   | A | 19750702 |
| AT 1975-5170   | A | 19750704 |

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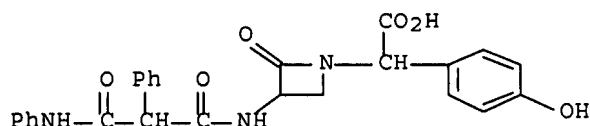


AB After the antibiotic FR-1923 (obtained from fermentation liquor of Nocardia) was identified as I, 543 analogs [II; R = NH<sub>2</sub> or acylamino; R<sub>1</sub> = alkyl (saturated or unsatd., straight-chain or branched) with substituents, e.g., CO<sub>2</sub>H (or its derivs.), CN, OH, NH<sub>2</sub>, Ph or substituted Ph] were prepared by standard procedures and shown to be effective against, e.g., *Bacillus subtilis*, *Escherichia coli*, and *Staphylococcus aureus*.

IT 59510-12-2P 59510-40-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 59510-12-2 CAPLUS

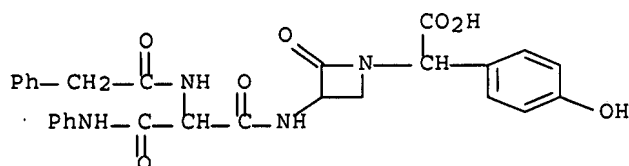
CN 1-Azetidineacetic acid, 3-[[1,3-dioxo-2-phenyl-3-(phenylamino)propyl]amino]-α-(4-hydroxyphenyl)-2-oxo-, monosodium salt (9CI) (CA INDEX NAME)



● Na

RN 59510-40-6 CAPLUS

CN 1-Azetidineacetic acid, 3-[[1,3-dioxo-2-[(phenylacetyl)amino]-3-(phenylamino)propyl]amino]- $\alpha$ -(4-hydroxyphenyl)-2-oxo-, monosodium salt (9CI) (CA INDEX NAME)



● Na

L53 ANSWER 54 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1975:514441 CAPLUS Full-text

DOCUMENT NUMBER: 83:114441

TITLE: 7-(N-Acylamino)-2,2-dimethyl-3-cephem-4-carboxylic acids and their esters

INVENTOR(S): Heusler, Karl; Bickel, Hans; Fechtig, Bruno; Peter, Heinrich; Scartazzini, Riccardo

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.

SOURCE: Patentschrift (Switz.), 25 pp.

CODEN: SWXXAS

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

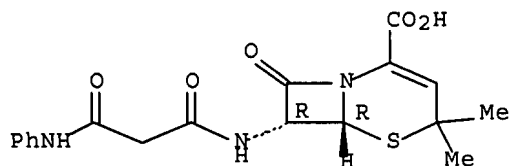
| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
| CH 562250              | A5   | 19750530 | CH 1970-8472    | 19700605   |
| ES 391895              | A1   | 19730701 | ES 1971-391895  | 19710603   |
| NL 7107730             | A    | 19711207 | NL 1971-7730    | 19710604   |
| PRIORITY APPLN. INFO.: |      |          | CH 1970-8472    | A 19700605 |

GI For diagram(s), see printed CA Issue.

AB Cephems I (R = H<sub>2</sub>NCHPh, MeO<sub>2</sub>CCH<sub>2</sub>, EtO<sub>2</sub>CCH<sub>2</sub>, BrCH<sub>2</sub>, PhNHCOCH<sub>2</sub>, MeOCH<sub>2</sub>, 4-aminopyridiniummethyl, PhOCH<sub>2</sub>, 4-MeC<sub>6</sub>H<sub>4</sub>SCH<sub>2</sub>, AcCH<sub>2</sub>, BzCH<sub>2</sub>, NCCH<sub>2</sub>, NCCHMe, NCCHPh, ClCH<sub>2</sub>CH<sub>2</sub>NH, ClCH<sub>2</sub>CH<sub>2</sub>, ClCH<sub>2</sub>, Cl<sub>2</sub>CH, allyl, PhCH<sub>2</sub>, 2-thienylmethyl, MeSCH<sub>2</sub>, (MeO<sub>2</sub>C)<sub>2</sub>CH, HO<sub>2</sub>CCHPh, amino(2-thienyl)methyl, 1-tetrazolylmethyl, 1-methyl-2-imidazolylmethyl, 1,2,4-triazol-3-ylthiomethyl, BF<sub>2</sub>CH, N<sub>3</sub>CH<sub>2</sub>) were prepared by acylating the 7-aminocephem, prepared from penicillins G or V in 15 steps.

IT 35621-40-0P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 35621-40-0 CAPLUS  
 CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
 7-[[1,3-dioxo-3-(phenylamino)propyl]amino]-4,4-dimethyl-8-oxo-,  
 (6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L53 ANSWER 55 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1974:437556 CAPLUS Full-text  
 DOCUMENT NUMBER: 81:37556  
 TITLE: 7-Amino-2,2-dimethylceph-3-em-4-carboxylic acid  
 derivatives  
 INVENTOR(S): Heusler, Karl; Bickel, Hans; Fechtig, Bruno; Peter,  
 Heinrich; Scartazzini, Riccardo  
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G.  
 SOURCE: Brit., 50 pp.  
 CODEN: BRXXAA  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

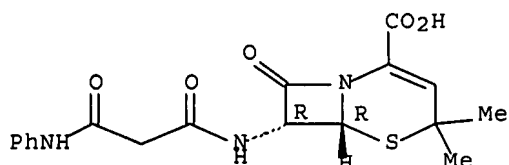
| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
| GB 1353326             | A    | 19740515 | GB 1971-5052    | 19710219   |
| PRIORITY APPLN. INFO.: |      |          | GB 1971-5052    | A 19710219 |

GI For diagram(s), see printed CA Issue.

AB Thirty-four title compds. I (R = H, acyl; R1 = H, Me, CMe3, CH2COC6H4Br-p, Na), useful as bactericides were prepared Me2SO oxidation of the azetidinones II (R = PhCH2-CO, PhOCH2CO; R1 = CMe3), prepared from penicillin G and V, resp., gave the corresponding title compds. I which on hydrolysis and deacylation gave I (R = R1 = H). Most I (R = acyl) were prepared by acylation of I (R = R1 = H).

IT 35621-40-0P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 35621-40-0 CAPLUS  
 CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
 7-[[1,3-dioxo-3-(phenylamino)propyl]amino]-4,4-dimethyl-8-oxo-,  
 (6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L53 ANSWER 56 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1974:108513 CAPLUS Full-text  
 DOCUMENT NUMBER: 80:108513  
 TITLE: Isoxazolyll derivatives of penicillin and cephalosporin  
 PATENT ASSIGNEE(S): Koninklijke Nederlandsche Gist- en Spiritusfabriek N.  
 V.  
 SOURCE: Ger. Offen., 73 pp. Division of Ger. Offen. 2,155,081  
 (CA 77;48483b).  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE        |
|------------------------|------|----------|-----------------|-------------|
| DE 2166468             | A1   | 19740214 | DE 1971-2166468 | 19711105    |
| US 3891635             | A    | 19750624 | US 1971-195482  | 19711103    |
| BE 775012              | A1   | 19720505 | BE 1971-110230  | 19711105    |
| NL 7115231             | A    | 19720509 | NL 1971-15231   | 19711105    |
| FR 2112504             | A5   | 19720616 | FR 1971-39822   | 19711105    |
| FR 2112504             | B1   | 19751031 |                 |             |
| ZA 7107433             | A    | 19720726 | ZA 1971-7433    | 19711105    |
| HU 162822              | B    | 19730428 | HU 1971-KO2471  | 19711105    |
| AU 7135431             | A    | 19730510 | AU 1971-35431   | 19711105    |
| ES 396720              | A1   | 19750416 | ES 1971-396720  | 19711105    |
| CA 983920              | A1   | 19760217 | CA 1971-126985  | 19711105    |
| CH 572935              | A5   | 19760227 | CH 1975-14002   | 19711105    |
| CH 572936              | A5   | 19760227 | CH 1975-14003   | 19711105    |
| CH 573436              | A5   | 19760315 | CH 1971-16162   | 19711105    |
| SU 520050              | A3   | 19760630 | SU 1971-1713952 | 19711105    |
| JP 52012200            | B    | 19770405 | JP 1971-88177   | 19711105    |
| CA 993442              | A2   | 19760720 | CA 1973-166365  | 19730319    |
| ES 423795              | A1   | 19761216 | ES 1974-423795  | 19740301    |
| US 4010264             | A    | 19770301 | US 1974-533708  | 19741217    |
| PRIORITY APPLN. INFO.: |      |          | GB 1970-53040   | A 19701106  |
|                        |      |          | US 1971-195482  | A2 19711103 |
|                        |      |          | CA 1971-126985  | A3 19711105 |

GI For diagram(s), see printed CA Issue.

AB Penicillins I (R = 2,6-Cl<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, 2,4,6-Me<sub>3</sub>C<sub>6</sub>H<sub>2</sub>, 4-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, 1-adamantanyl, Me; R<sub>1</sub> = H, Me, CO<sub>2</sub>H, CONH<sub>2</sub>, CN; R<sub>2</sub> = H, Cl, Me, NHCO<sub>2</sub>CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>NO<sub>2</sub>-p, NH<sub>2</sub>, CONH<sub>2</sub>, CONHPh) and their salts were prepared by converting 6-aminopenicillanic acid to its trimethylsilyl ester followed by treatment with the isoxazolyllacetyl chloride or by treating trimethylsilyl 6-isocyanatopenicillanate with the isoxazolyllacetic acid. The cephalosporins II (R = 2,6-Cl<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, 2,4,6-Me<sub>3</sub>C<sub>6</sub>H<sub>2</sub>, 4-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, Me; R<sub>1</sub> = H, Me; R<sub>3</sub> = H, OAc) were similarly prepared

IT 36923-10-1P

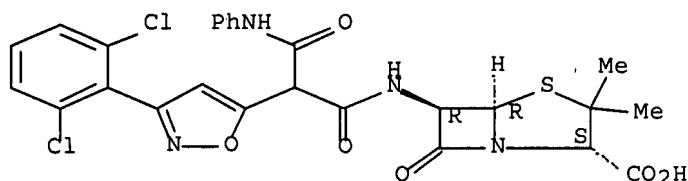
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 36923-10-1 CAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 6-[[2-[3-(2,6-dichlorophenyl)-5-isoxazolyl]-1,3-dioxo-3-(phenylamino)propyl]amino]-3,3-dimethyl-7-oxo-, monosodium salt, [2S-(2 $\alpha$ ,5 $\alpha$ ,6 $\beta$ )]- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



● Na

L53 ANSWER 57 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1974:108511 CAPLUS Full-text  
DOCUMENT NUMBER: 80:108511  
TITLE: Penicillin and cephalosporin derivatives  
PATENT ASSIGNEE(S): Koninklijke Nederlandsche Gist- en Spiritusfabriek N. V.  
SOURCE: Ger. Offen., 75 pp. Division of Ger. Offen. 2,155,081 (CA 77;48483b).  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
| -----                  | ---- | -----    | -----           | -----      |
| DE 2166467             | A1   | 19740214 | DE 1971-2166467 | 19711105   |
| US 3891635             | A    | 19750624 | US 1971-195482  | 19711103   |
| BE 775012              | A1   | 19720505 | BE 1971-110230  | 19711105   |
| NL 7115231             | A    | 19720509 | NL 1971-15231   | 19711105   |
| FR 2112504             | A5   | 19720616 | FR 1971-39822   | 19711105   |
| FR 2112504             | B1   | 19751031 |                 |            |
| ZA 7107433             | A    | 19720726 | ZA 1971-7433    | 19711105   |
| HU 162822              | B    | 19730428 | HU 1971-KO2471  | 19711105   |
| AU 7135431             | A    | 19730510 | AU 1971-35431   | 19711105   |
| ES 396720              | A1   | 19750416 | ES 1971-396720  | 19711105   |
| CA 983920              | A1   | 19760217 | CA 1971-126985  | 19711105   |
| CH 572935              | A5   | 19760227 | CH 1975-14002   | 19711105   |
| CH 572936              | A5   | 19760227 | CH 1975-14003   | 19711105   |
| CH 573436              | A5   | 19760315 | CH 1971-16162   | 19711105   |
| SU 520050              | A3   | 19760630 | SU 1971-1713952 | 19711105   |
| JP 52012200            | B    | 19770405 | JP 1971-88177   | 19711105   |
| CA 993442              | A2   | 19760720 | CA 1973-166365  | 19730319   |
| ES 423795              | A1   | 19761216 | ES 1974-423795  | 19740301   |
| US 4010264             | A    | 19770301 | US 1974-533708  | 19741217   |
| PRIORITY APPLN. INFO.: |      |          | GB 1970-53040   | A 19701106 |

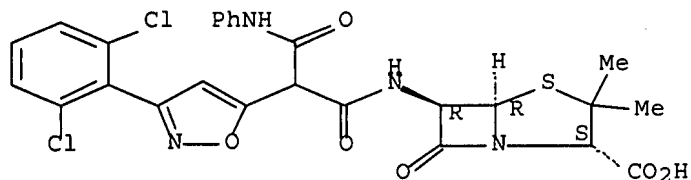


US 1971-195482  
CA 1971-126985

A2 19711103  
A3 19711105

GI For diagram(s), see printed CA Issue.  
AB Penicillins I (R = 2,6-Cl<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, 2,4,6-Me<sub>3</sub>C<sub>6</sub>H<sub>2</sub>, 4-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, 1-adamantanyl, Me; R<sub>1</sub> = H, Me, CO<sub>2</sub>H, CONH<sub>2</sub>, CN; R<sub>2</sub> = H, Cl, Me, NHCO<sub>2</sub>CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>NO<sub>2</sub>-p, NH<sub>2</sub>, CONH<sub>2</sub>, CONHPh) and their salts were prepared by converting 6-amino-penicillanic acid to its trimethylsilyl ester followed by treatment with the isoxazolylacetyl chloride or by treating trimethylsilyl 6-isocyanatopenicillanate with the isoxazolylacetic acid. The cephalosporins II (R = 2,6-Cl<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, 2,4,6-Me<sub>3</sub>C<sub>6</sub>H<sub>2</sub>, 4-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, Me; R<sub>1</sub> = H, Me; R<sub>3</sub> = H, OAc) were similarly prepared  
IT 36923-10-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 36923-10-1 CAPLUS  
CN 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 6-[[2-[3-(2,6-dichlorophenyl)-5-isoxazolyl]-1,3-dioxo-3-(phenylamino)propyl]amino]-3,3-dimethyl-7-oxo-, monosodium salt, [2S-(2 $\alpha$ ,5 $\alpha$ ,6 $\beta$ )]- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



● Na

L53 ANSWER 58 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1974:83019 CAPLUS Full-text  
DOCUMENT NUMBER: 80:83019  
TITLE: Enol derivatives  
INVENTOR(S): Scartazzini, Riccardo; Bickel, Hans  
PATENT ASSIGNEE(S): Ciba-Geigy A.-G.  
SOURCE: Ger. Offen., 263 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
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| DE 2331133 | A1   | 19740117 | DE 1973-2331133 | 19730619 |
| DE 2331133 | C2   | 19840412 |                 |          |
| CH 587268  | A5   | 19770429 | CH 1972-9788    | 19720629 |
| CH 603666  | A5   | 19780831 | CH 1977-1154    | 19720629 |
| CH 605987  | A5   | 19781013 | CH 1972-18722   | 19721222 |
| CH 605988  | A5   | 19781013 | CH 1973-2655    | 19730223 |
| FI 59601   | B    | 19810529 | FI 1973-1750    | 19730530 |
| FI 59601   | C    | 19810910 |                 |          |
| FI 59602   | B    | 19810529 | FI 1973-1751    | 19730530 |

|             |    |          |                 |          |
|-------------|----|----------|-----------------|----------|
| FI 59602    | C  | 19810910 |                 |          |
| FI 60870    | B  | 19811231 | FI 1973-1752    | 19730530 |
| FI 60870    | C  | 19820413 |                 |          |
| SE 417099   | B  | 19810223 | SE 1973-8234    | 19730612 |
| SE 417099   | C  | 19810611 |                 |          |
| SE 417429   | B  | 19810316 | SE 1973-8233    | 19730612 |
| SE 417429   | C  | 19810702 |                 |          |
| SE 417430   | B  | 19810316 | SE 1973-8235    | 19730612 |
| SE 417430   | C  | 19810702 |                 |          |
| ZA 7304050  | A  | 19740529 | ZA 1973-4050    | 19730614 |
| RO 63761    | A1 | 19781215 | RO 1973-860064  | 19730614 |
| RO 64419    | A2 | 19790310 | RO 1973-86374   | 19730614 |
| RO 64226    | A1 | 19790515 | RO 1973-75138   | 19730614 |
| RO 73345    | A1 | 19820909 | RO 1973-84759   | 19730614 |
| FR 2190418  | A1 | 19740201 | FR 1973-23235   | 19730626 |
| AU 7357386  | A  | 19750109 | AU 1973-57386   | 19730627 |
| GB 1435111  | A  | 19760512 | GB 1973-30537   | 19730627 |
| SU 542474   | A3 | 19770105 | SU 1973-1940203 | 19730627 |
| SU 677662   | A3 | 19790730 | SU 1973-1943362 | 19730627 |
| BE 801597   | A1 | 19731228 | BE 1973-132845  | 19730628 |
| DD 106184   | A5 | 19740612 | DD 1973-171903  | 19730628 |
| DD 106187   | A5 | 19740612 | DD 1973-171906  | 19730628 |
| DD 107470   | A5 | 19740812 | DD 1973-171905  | 19730628 |
| AT 7305694  | A  | 19750415 | AT 1973-5694    | 19730628 |
| AT 356809   | B  | 19800527 |                 |          |
| AT 7305695  | A  | 19750615 | AT 1973-5695    | 19730628 |
| AT 356810   | B  | 19800527 |                 |          |
| AT 7305696  | A  | 19750815 | AT 1973-5696    | 19730628 |
| AT 329745   | B  | 19760525 |                 |          |
| AT 7500576  | A  | 19750815 | AT 1975-576     | 19730628 |
| AT 329762   | B  | 19760525 |                 |          |
| HU 167726   | B  | 19751225 | HU 1973-CI1393  | 19730628 |
| HU 168017   | B  | 19760228 | HU 1973-CI1392  | 19730628 |
| ES 416411   | A1 | 19760516 | ES 1973-416411  | 19730628 |
| ES 416412   | A1 | 19760516 | ES 1973-416412  | 19730628 |
| HU 169032   | B  | 19760928 | HU 1973-CI1391  | 19730628 |
| ES 416413   | A1 | 19761116 | ES 1973-416413  | 19730628 |
| HU 172459   | B  | 19780928 | HU 1973-CI1599  | 19730628 |
| CA 1110230  | A1 | 19811006 | CA 1973-175100  | 19730628 |
| NO 145240   | B  | 19811102 | NO 1973-2681    | 19730628 |
| NO 145240   | C  | 19820210 |                 |          |
| NO 145241   | B  | 19811102 | NO 1973-2682    | 19730628 |
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| NO 145242   | B  | 19811102 | NO 1973-2683    | 19730628 |
| NO 145242   | C  | 19820210 |                 |          |
| DK 153324   | B  | 19880704 | DK 1973-3588    | 19730628 |
| NL 7309136  | A  | 19740102 | NL 1973-9136    | 19730629 |
| NL 7309137  | A  | 19740102 | NL 1973-9137    | 19730629 |
| NL 7309139  | A  | 19740102 | NL 1973-9139    | 19730629 |
| JP 49049986 | A  | 19740515 | JP 1973-74353   | 19730629 |
| JP 59034716 | B  | 19840824 |                 |          |
| JP 49049987 | A  | 19740515 | JP 1973-74354   | 19730629 |
| JP 59033598 | B  | 19840816 |                 |          |
| JP 49049988 | A  | 19740515 | JP 1973-74355   | 19730629 |
| JP 59033599 | B  | 19840816 |                 |          |
| PL 91608    | B1 | 19770331 | PL 1973-163719  | 19730629 |
| PL 93779    | B1 | 19770630 | PL 1973-163718  | 19730629 |
| PL 104396   | B1 | 19790831 | PL 1973-173571  | 19730629 |
| PL 116789   | B1 | 19810630 | PL 1973-163715  | 19730629 |
| NO 7500055  | A  | 19740103 | NO 1975-55      | 19750108 |

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| ES 442262   | A1 | 19770701 | ES 1975-442262 | 19751031 |
| CH 597241   | A5 | 19780331 | CH 1976-5624   | 19760505 |
| SE 7612053  | A  | 19761029 | SE 1976-12053  | 19761029 |
| SE 435289   | B  | 19840917 |                |          |
| SE 435289   | C  | 19841220 |                |          |
| FI 7902808  | A  | 19790910 | FI 1979-2808   | 19790910 |
| FI 64941    | B  | 19831031 |                |          |
| FI 64941    | C  | 19840210 |                |          |
| JP 55105690 | A  | 19800813 | JP 1979-169493 | 19791227 |
| JP 59034196 | B  | 19840821 |                |          |
| JP 55105691 | A  | 19800813 | JP 1979-169494 | 19791227 |
| JP 59051957 | B  | 19841217 |                |          |
| JP 55105692 | A  | 19800813 | JP 1979-169495 | 19791227 |
| JP 59038955 | B  | 19840920 |                |          |
| JP 56039093 | A  | 19810414 | JP 1980-94119  | 19800711 |
| JP 60019916 | B  | 19850518 |                |          |
| JP 56049390 | A  | 19810502 | JP 1980-99283  | 19800718 |
| JP 61008071 | B  | 19860311 |                |          |
| JP 56068684 | A  | 19810609 | JP 1980-99282  | 19800718 |
| JP 61008070 | B  | 19860311 |                |          |
| JP 56127392 | A  | 19811006 | JP 1981-17382  | 19810207 |
| JP 59007716 | B  | 19840220 |                |          |
| JP 59076089 | A  | 19840428 | JP 1983-146770 | 19830812 |
| JP 60054320 | B  | 19851129 |                |          |
| JP 59076090 | A  | 19840428 | JP 1983-146771 | 19830812 |
| JP 60053037 | B  | 19851122 |                |          |

PRIORITY APPLN. INFO.:

|               |   |          |
|---------------|---|----------|
| CH 1972-9788  | A | 19720629 |
| CH 1972-12195 | A | 19720817 |
| CH 1972-18722 | A | 19721222 |
| CH 1973-2655  | A | 19730223 |
| CH 1972-2655  | A | 19730223 |
| CH 1973-7388  | A | 19730523 |
| FI 1973-1751  | A | 19730530 |
| NO 1973-2683  | A | 19730628 |
| CH 1976-5624  | A | 19760505 |

GI For diagram(s), see printed CA Issue.

AB 7-Acylamino-3-alkoxycephemcarboxylic acids I (R = acyl, R1 = OMe, OEt, OBu, OCH<sub>2</sub>Ph, OAc) were prepared. Thus, the Na salt of I (R = PhCH<sub>2</sub>CO, R1 = CH<sub>2</sub>OH) was converted to its diphenylmethyl ester, iodinated, and dehydroiodinated to the cepham II (X = CH<sub>2</sub>), which on ozonolysis gave a mixture of II (X = O) and its 1-oxide. Treatment of the mixture with CH<sub>2</sub>N<sub>2</sub> gave I (R = PhCH<sub>2</sub>CO, R1 = OMe), its 1-oxide, and its 2-cephem analog, which was separated by chromatog.

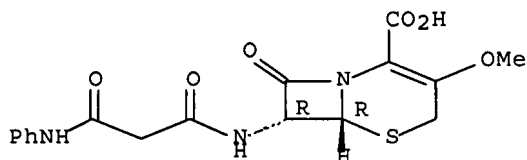
IT 51803-52-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 51803-52-2 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
7-[[1,3-dioxo-3-(phenylamino)propyl]amino]-3-methoxy-8-oxo-, (6R-trans)-  
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L53 ANSWER 59 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1974:82957 CAPLUS Full-text  
DOCUMENT NUMBER: 80:82957  
TITLE: Semisynthetic penicillins  
INVENTOR(S): Palomo Coll, Antonio L.  
PATENT ASSIGNEE(S): gema S. A.  
SOURCE: Span., 9 pp. Addn. to Span. 376,271 (See Ger.  
2,105,166 (CA 75;151782f).  
CODEN: SPXXAD  
DOCUMENT TYPE: Patent  
LANGUAGE: Spanish  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
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| ES 386962              | A2   | 19730401 | ES 1970-386962  | 19701231   |
| BE 762311              | A1   | 19710701 | BE 1971-99209   | 19710129   |
| CH 549049              | A    | 19740515 | CH 1971-1624    | 19710202   |
| DE 2105166             | A    | 19710902 | DE 1971-2105166 | 19710204   |
| NL 7101575             | A    | 19710809 | NL 1971-1575    | 19710205   |
| AT 314730              | B    | 19740425 | AT 1971-972     | 19710205   |
| PRIORITY APPLN. INFO.: |      |          | ES 1970-376271  | A 19700205 |
|                        |      |          | ES 1970-386962  | A 19701231 |

GI For diagram(s), see printed CA Issue.

AB The penicillin I (R = 0-MeC<sub>6</sub>H<sub>4</sub>NHCO) was prepared by treating 6-aminopenicillanic acid (II) with 0-MeC<sub>6</sub>H<sub>4</sub>NHCOCHPhCO<sub>2</sub>H in the presence of Me<sub>2</sub>N<sup>+</sup>:-CHCl<sub>3</sub>.ClSO<sub>2</sub>H. I (R = NHCONHN:CMe<sub>2</sub>) was prepared by treating II with Me<sub>2</sub>C:NNHCONHCHPhCO<sub>2</sub>H. I (R = NHCONHN:CHPh) was similarly prepared

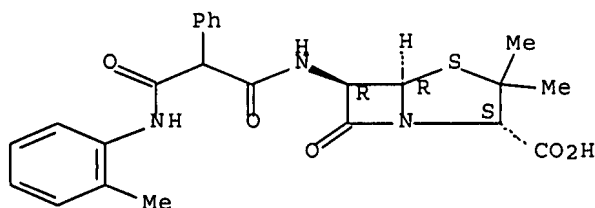
IT 34093-30-6P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 34093-30-6 CAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 3,3-dimethyl-6-[[3-[(2-methylphenyl)amino]-1,3-dioxo-2-phenylpropyl]amino]-7-oxo-, [2S-(2 $\alpha$ ,5 $\alpha$ ,6 $\beta$ )]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



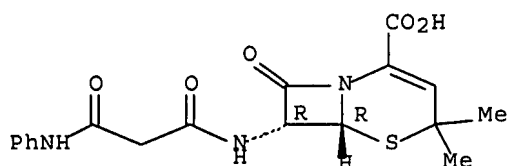
L53 ANSWER 60 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1972:514397 CAPLUS Full-text  
DOCUMENT NUMBER: 77:114397  
TITLE: 8-Oxo-5-thia-1-azabicyclo[4,2,0]oct-2-ene compounds

INVENTOR(S): Heusler, Karl; Bickel, Hans; Fechtig, Bruno; Peter, Heinrich; Scartazzini, Riccardo  
 PATENT ASSIGNEE(S): Ciba-Geigy A. G.  
 SOURCE: S. African, 130 pp.  
 CODEN: SFXAB  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|----|---|------|----------|-----------------|----------|
|    | ZA 7102523  |      | 19711125 | ZA 1971-2523    | 19710420 |
| GI | For diagram(s), see printed CA Issue.   |      |          |                 |          |
| AB | Tert-Bu $\alpha$ -[4 $\beta$ -[2-(hydroxymethyl)-2-propylthio]-2-oxo-3 $\beta$ -(N-phenylacetamido)-1-azetidiny]- $\alpha$ -(triphenylphosphoranylidene)-acetate (I) was treated with Ac <sub>2</sub> O in Me <sub>2</sub> SO to give the ceph(3)-em-4-carboxylic acid (II, R = PhCH <sub>2</sub> CO, R <sub>1</sub> = tert-Bu). Penicillin G azide was heated to give 2,2-dimethyl-6-(N-phenylacetamido)-3-[(2,2,2-trichloroethoxycarbonyl)amino]penam (III). III was treated with HOAc and the product treated with NaBH <sub>4</sub> to give 4 $\beta$ -[2-(hydroxymethyl)-2-propylthio]-3 $\beta$ -(N-phenylacetamido)azetidinon-2-one, which was converted to I. About 40 II (R = PhOCH <sub>2</sub> CO, H, PhCHNH <sub>2</sub> CO, MeO <sub>2</sub> CCH <sub>2</sub> CO, BrCH <sub>2</sub> CO, PhNHCOCH <sub>2</sub> CO, NCCH <sub>2</sub> CO, H <sub>2</sub> C:CHCH <sub>2</sub> CO, 2-thienylacetyl, MeSCH <sub>2</sub> CO, 2-imidazolylthioacetyl etc.; R <sub>1</sub> = tert-Bu, H, p-BrC <sub>6</sub> H <sub>4</sub> COCH <sub>2</sub> ) were prepared |      |          |                 |          |
| IT | 35621-40-0P<br>RL: SPN (Synthetic preparation); PREP (Preparation)<br>(preparation of)  |      |          |                 |          |
| RN | 35621-40-0 CAPLUS   |      |          |                 |          |
| CN | 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,<br>7-[[1,3-dioxo-3-(phenylamino)propyl]amino]-4,4-dimethyl-8-oxo-,<br>(6R-trans)- (9CI) (CA INDEX NAME)  |      |          |                 |          |

Absolute stereochemistry.



L53 ANSWER 61 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1972:448483 CAPLUS Full-text  
 DOCUMENT NUMBER: 77:48483  
 TITLE: (Isoxazolylacetamido)penicillanic and -cephalosporanic acid derivatives  
 PATENT ASSIGNEE(S): Koninklijke Nederlandsche Gist- en Spiritusfabriek N. V.  
 SOURCE: Ger. Offen., 79 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE        |
|------------------------|------|----------|-----------------|-------------|
| DE 2155081             | A    | 19720510 | DE 1971-2155081 | 19711105    |
| DE 2155081             | B2   | 19750515 |                 |             |
| DE 2155081             | C3   | 19751218 |                 |             |
| US 3891635             | A    | 19750624 | US 1971-195482  | 19711103    |
| BE 775012              | A1   | 19720505 | BE 1971-110230  | 19711105    |
| NL 7115231             | A    | 19720509 | NL 1971-15231   | 19711105    |
| FR 2112504             | A5   | 19720616 | FR 1971-39822   | 19711105    |
| FR 2112504             | B1   | 19751031 |                 |             |
| ZA 7107433             | A    | 19720726 | ZA 1971-7433    | 19711105    |
| HU 162822              | B    | 19730428 | HU 1971-KO2471  | 19711105    |
| AU 7135431             | A    | 19730510 | AU 1971-35431   | 19711105    |
| ES 396720              | A1   | 19750416 | ES 1971-396720  | 19711105    |
| CA 983920              | A1   | 19760217 | CA 1971-126985  | 19711105    |
| CH 572935              | A5   | 19760227 | CH 1975-14002   | 19711105    |
| CH 572936              | A5   | 19760227 | CH 1975-14003   | 19711105    |
| CH 573436              | A5   | 19760315 | CH 1971-16162   | 19711105    |
| SU 520050              | A3   | 19760630 | SU 1971-1713952 | 19711105    |
| JP 52012200            | B    | 19770405 | JP 1971-88177   | 19711105    |
| CA 993442              | A2   | 19760720 | CA 1973-166365  | 19730319    |
| ES 423795              | A1   | 19761216 | ES 1974-423795  | 19740301    |
| US 4010264             | A    | 19770301 | US 1974-533708  | 19741217    |
| PRIORITY APPLN. INFO.: |      |          | GB 1970-53040   | A 19701106  |
|                        |      |          | US 1971-195482  | A2 19711103 |
|                        |      |          | CA 1971-126985  | A3 19711105 |

GI For diagram(s), see printed CA Issue.

AB Twenty-three title compds. (I; Q = Q1 or Q2; R = 2,6-Cl<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, 2,4,6-Me<sub>3</sub>C<sub>6</sub>H<sub>2</sub>, 1-adamantyl, p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, or Me; R<sub>1</sub> = H, CO<sub>2</sub>H, Me, CONH<sub>2</sub>, or CN; R<sub>2</sub> = H, Cl, Me, p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>O<sub>2</sub>CNH, NH<sub>2</sub>, H<sub>2</sub>NCO, or PhNHCO; R<sub>3</sub> = H or OAc) or their Na or cyclohexylamine salts, useful as antibiotics, were prepared by amidation of the acetyl chlorides II (X = Cl). Thus, Et<sub>3</sub>N and Me<sub>3</sub>SiCl were added to Q<sub>1</sub>NH<sub>2</sub> in AcOEt under N at .apprx.0°, the mixture was kept 35 min, II (R = 2,6-Cl<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, R<sub>1</sub> = R<sub>2</sub> = H) in AcOEt added at <5°, and the mixture kept 90 min at room temperature to give 32% I (Q = Q<sub>1</sub> = R = 2,6-Cl<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, R<sub>1</sub> = R<sub>2</sub> = H) as Na salt (III). III was also obtained by reaction of II (X = OH) with Q<sub>1</sub>NCO (Me<sub>3</sub>Si ester) in the presence of N-vinylimidazole catalyst.

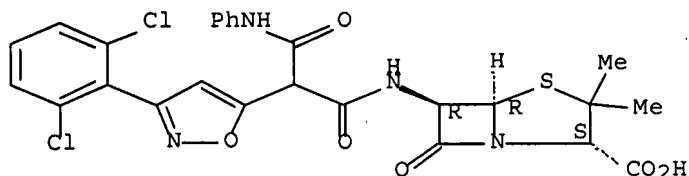
IT 36923-10-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 36923-10-1 CAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 6-[[2-[3-(2,6-dichlorophenyl)-5-isoxazolyl]-1,3-dioxo-3-(phenylamino)propyl]amino]-3,3-dimethyl-7-oxo-, monosodium salt, [2S-(2α,5α,6β)]- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



● Na

L53 ANSWER 62 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1972:99686 CAPLUS Full-text

DOCUMENT NUMBER: 76:99686

TITLE: Pharmacologically active 8-oxo-5-thia-1-azabicyclo[4,2,0]oct-2-ene

INVENTOR(S): Heusler, Karl; Bickel, Hans; Fechtig, Bruno; Peter, Heinrich; Scartazzini, Riccardo

PATENT ASSIGNEE(S): Ciba-Geigy A.-G.

SOURCE: Ger. Offen., 175 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| -----      | ---  | ----     | -----           | -----    |
| DE 2127287 | A    | 19711216 | DE 1971-2127287 | 19710602 |
| CH 563396  | A5   | 19750630 | CH 1970-8470    | 19700605 |
| US 3883517 | A    | 19750513 | US 1971-149341  | 19710602 |
| ES 391893  | A1   | 19740616 | ES 1971-391893  | 19710603 |
| NL 7107726 | A    | 19711207 | NL 1971-7726    | 19710604 |
| BE 768173  | A1   | 19711207 | BE 1971-104318  | 19710607 |
| FR 2097836 | A5   | 19720303 | FR 1971-20461   | 19710607 |
| FR 2100727 | A1   | 19720324 | FR 1971-20459   | 19710607 |
| FR 2100727 | A5   | 19720324 |                 |          |

PRIORITY APPLN. INFO.:

|              |   |          |
|--------------|---|----------|
| CH 1970-8470 | A | 19700605 |
| CH 1971-242  | A | 19710108 |
| CH 1971-7279 | A | 19710517 |

GI For diagram(s), see printed CA Issue.

AB The cephalosporin derivs. I (R = PhCH<sub>2</sub>, PhOCH<sub>2</sub>, Me<sub>3</sub>CO<sub>2</sub>CNHCHPh, AcCH<sub>2</sub>, EtO<sub>2</sub>CCH<sub>2</sub>, BrCH<sub>2</sub>, PhNHCOCH<sub>2</sub>, MeOCH<sub>2</sub>, PhOCH<sub>2</sub>, p-Me-C<sub>6</sub>H<sub>4</sub>SCH<sub>2</sub>, BzCH<sub>2</sub>, NCCH<sub>2</sub>, NCCHMe, NCCHPr, ClCH<sub>2</sub>CH<sub>2</sub>NH, ClCH<sub>2</sub>CH<sub>2</sub>, ClCH<sub>2</sub>, Cl<sub>2</sub>CH, allyl, 2-thienylmethyl, MeSCH<sub>2</sub>, (MeO<sub>2</sub>C)<sub>2</sub>CH, HO<sub>2</sub>CCHPh, amino(2-thienyl)methyl, 1-tetrazolylmethyl, BrCH<sub>2</sub>, Br<sub>2</sub>CH, N<sub>3</sub>CH<sub>2</sub>, (1-methyl-2-imidazolyl)thiomethyl, 1,2,4-triazol-3-ylthiomethyl) and some esters and internal salts were prepared by cyclizing the azetidinones II (R<sub>1</sub> = PhCH<sub>2</sub>CO, PhOCH<sub>2</sub>CO), hydrolyzing to II (R<sub>1</sub> = H), and treating this with RCO<sub>2</sub>H, RCO<sub>2</sub>Na, or RCOCl. I did not undergo isomerization of the double bond owing to the 2 Me groups in the 2-position. They are active against penicillin-resistant Staphylococcus aureus.

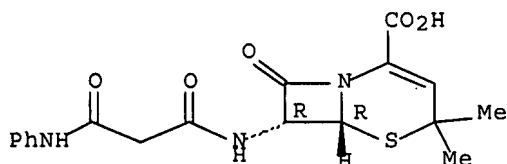
IT 35621-40-0P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 35621-40-0 ~CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
7-[[1,3-dioxo-3-(phenylamino)propyl]amino]-4,4-dimethyl-8-oxo-,  
(6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L53 ANSWER 63 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1971:551782 CAPLUS Full-text  
 DOCUMENT NUMBER: 75:151782  
 TITLE:  $\alpha$ -(Carbamoyl)benzylpenicillins  
 INVENTOR(S): Palomo Coll., Antonio L.  
 PATENT ASSIGNEE(S): Gema S.A.  
 SOURCE: Ger. Offen., 24 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
| DE 2105166             | A    | 19710902 | DE 1971-2105166 | 19710204   |
| ES 376271              | A1   | 19720316 | ES 1970-376271  | 19700205   |
| ES 386962              | A2   | 19730401 | ES 1970-386962  | 19701231   |
| PRIORITY APPLN. INFO.: |      |          | ES 1970-376271  | A 19700205 |
|                        |      |          | ES 1970-386962  | A 19701231 |

GI For diagram(s), see printed CA Issue.

AB The title compds. [I; R=Et, o-MeC6H4, m-F3CC6H4; R1=H or Et; NRR1=morpholino] were prepared by reaction of 6-aminopenicillanic acid (II) with RNR1COCHPhCO2H and ClSO2CH:N+NH2 Cl- (III). Thus, III was added to HO2CCHPhCONHC6H4Me-o in CH2Cl2 at -5°, stirred 1 hr at 10°, added to II in CH2Cl2-Et3N-pivalic acid, and stirred with aqueous HCHO solution to give 90% I (R=o-MeC6H4, R1=H). Similarly prepared were 3 other I.

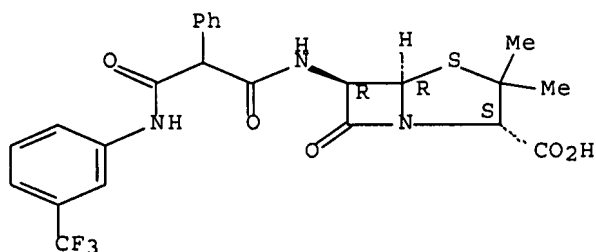
IT 34093-28-2P 34093-30-6P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 34093-28-2 CAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 3,3-dimethyl-7-oxo-6-[2-phenyl-2-[( $\alpha,\alpha,\alpha$ -trifluoro-m-tolyl)carbamoyl]acetamido]- (8CI) (CA INDEX NAME)

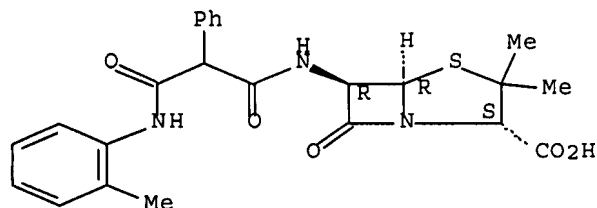
Absolute stereochemistry.





RN 34093-30-6 CAPLUS  
 CN 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 3,3-dimethyl-6-[[3-  
 [(2-methylphenyl)amino]-1,3-dioxo-2-phenylpropyl]amino]-7-oxo-,  
 [2S-(2 $\alpha$ ,5 $\alpha$ ,6 $\beta$ )]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L53 ANSWER 64 OF 64 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1961:59552 CAPLUS  
 DOCUMENT NUMBER: 55:59552  
 ORIGINAL REFERENCE NO.: 55:11438b-e  
 TITLE: Derivatives of dichloromalononic acid  
 INVENTOR(S): Heymons, Albrecht; Liebig, Horst  
 PATENT ASSIGNEE(S): Riedel de Haen Akt.-Ges.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

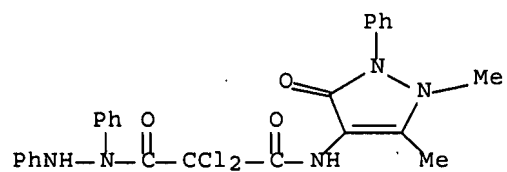
| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|------|
| DE 1075628 |      | 19600218 | DE              |      |

AB Mono- and dihydrazides and cyclic monohydrazides of dichloromalononic acid, with antidiabetic action on peroral administration, were prepared by dichlorination of 3,5-dioxypyrazolidines and cleaving the product to the desired derivative by adding alcs., amines, or alkanolamines. 1,2-Diphenyl-3,5-dioxypyrazolidine (I) heated in CHCl<sub>3</sub> 5 hrs. at 70° with Cl passed in gave 70% 1,2-diphenyl-4,4-dichloro-3,5-dioxypyrazolidine (II), m. 112-15°. I (0.1 mole) with 0.11 mole AlCl<sub>3</sub> in 150 cc. CHCl<sub>3</sub> then Cl gave 75% II. II (1.6 g.) with 1.7 g. NaOAc and 4 cc. MeOH gave 97% dichloromalononic acid Me ester 1,2-diphenylhydrazide, m. 159°. II (3 g.) with 1 cc. pyridine and 30 cc. iso-PrOH gave 60% dichloromalononic acid iso-Pr ester 1,2-diphenylhydrazide, m. 153-66° (decomposition). II with Et<sub>2</sub>NCH<sub>2</sub>CH<sub>2</sub>OH in dioxane gave 94% dichloromalononic acid diethylaminoethyl ester 1,2-diphenylhydrazide (III), m. 84-5° (decomposition). III with 0.1N HCl gave 78% dichloromalononic acid 1,2-diphenylhydrazide, m. 144-5°. II with PhNH<sub>2</sub> in dioxane gave 72% dichloromalononic acid anilide 1,2-diphenylhydrazide, m. 186-7°. II with 4-amino-1-phenyl-2,3-dimethyl-5-pyrazolone in dioxane gave dichloromalononic acid 1,2-diphenylhydrazide 1-phenyl-2,3-dimethyl-5-pyrazolon-4-ylamide, m. 187-93° (decomposition).

IT 114398-45-7P, Malonamic acid, N-antipyrinyl-2,2-dichloro-, 1,2-diphenylhydrazide  
 RL: PREP (Preparation)  
 (preparation of)

RN 114398-45-7 CAPLUS  
 CN Malonamic acid, N-antipyrinyl-2,2-dichloro-, 1,2-diphenylhydrazide (6CI)

(CA INDEX NAME)



=> d his full

(FILE 'HOME' ENTERED AT 12:28:36 ON 02 MAY 2007)

FILE 'REGISTRY' ENTERED AT 12:28:58 ON 02 MAY 2007

L1 STRUCTURE UPLOADED  
L2 8 SEA SSS SAM L1  
D STAT QUE L2  
L3 527 SEA SSS FUL L1  
SAVE TEMP L3 WAR784STR1L/A

FILE 'CAPLUS' ENTERED AT 12:33:26 ON 02 MAY 2007

L4 124 SEA ABB=ON PLU=ON L3  
E US2004-767784/APPS  
L5 1 SEA ABB=ON PLU=ON US2004-767784/AP  
D SCA  
L6 1 SEA ABB=ON PLU=ON L4 AND L5  
D SCA

FILE 'REGISTRY' ENTERED AT 12:35:29 ON 02 MAY 2007

L7 4 SEA ABB=ON PLU=ON L3 AND C3/ESS

FILE 'STNGUIDE' ENTERED AT 12:42:24 ON 02 MAY 2007

FILE 'REGISTRY' ENTERED AT 12:56:53 ON 02 MAY 2007  
D SCA L7

FILE 'CAPLUS' ENTERED AT 12:58:13 ON 02 MAY 2007

L8 3 SEA ABB=ON PLU=ON L7

FILE 'REGISTRY' ENTERED AT 12:58:34 ON 02 MAY 2007

FILE 'STNGUIDE' ENTERED AT 12:59:14 ON 02 MAY 2007

FILE 'REGISTRY' ENTERED AT 13:02:24 ON 02 MAY 2007

L9 STRUCTURE UPLOADED  
L10 4 SEA SSS SAM L9  
L11 14 SEA SUB=L3 SSS SAM L9  
D STAT QUE L11  
L12 370 SEA SUB=L3 SSS FUL L9  
SAVE TEMP L12 WAR784STR9L/A

FILE 'CAPLUS' ENTERED AT 13:07:44 ON 02 MAY 2007

L13 71 SEA ABB=ON PLU=ON L12

FILE 'REGISTRY' ENTERED AT 13:07:57 ON 02 MAY 2007

FILE 'CAPLUS' ENTERED AT 13:14:59 ON 02 MAY 2007

L14 1 SEA ABB=ON PLU=ON L12 AND L5  
D SCA  
SEL HIT RN

FILE 'REGISTRY' ENTERED AT 13:15:41 ON 02 MAY 2007

L15 173 SEA ABB=ON PLU=ON (741672-55-9/BI OR 741672-56-0/BI OR  
741672-57-1/BI OR 741672-58-2/BI OR 741672-59-3/BI OR 741672-60  
-6/BI OR 741672-61-7/BI OR 741672-62-8/BI OR 741672-63-9/BI OR  
741672-64-0/BI OR 741672-65-1/BI OR 741672-66-2/BI OR 741672-68  
-4/BI OR 741672-69-5/BI OR 741672-70-8/BI OR 741672-71-9/BI OR

741672-72-0/BI OR 741672-73-1/BI OR 741672-74-2/BI OR 741672-75-3/BI OR 741672-76-4/BI OR 741672-77-5/BI OR 741672-78-6/BI OR 741672-79-7/BI OR 741672-80-0/BI OR 741672-81-1/BI OR 741672-82-2/BI OR 741672-83-3/BI OR 741672-84-4/BI OR 741672-85-5/BI OR 741672-86-6/BI OR 741672-87-7/BI OR 741672-88-8/BI OR 741672-89-9/BI OR 741672-90-2/BI OR 741672-91-3/BI OR 741672-92-4/BI OR 741672-93-5/BI OR 741672-94-6/BI OR 741672-95-7/BI OR 741672-96-8/BI OR 741672-97-9/BI OR 741672-98-0/BI OR 741672-99-1/BI OR 741673-00-7/BI OR 741673-01-8/BI OR 741673-02-9/BI OR 741673-03-0/BI OR 741673-04-1/BI OR 741673-05-2/BI OR 741673-06-3/BI OR 741673-07-4/BI OR 741673-08-5/BI OR 741673-09-6/BI OR 741673-10-9/BI OR 741673-11-0/BI OR 741673-12-1/BI OR 741673-13-2/BI OR 741673-14-3/BI OR 741673-15-4/BI OR 741673-16-5/BI OR 741673-17-6/BI OR 741673-18-7/BI OR 741673-19-8/BI OR 741673-20-1/BI OR 741673-21-2/BI OR 741673-22-3/BI OR 741673-23-4/BI OR 741673-24-5/BI OR 741673-25-6/BI OR 741673-26-7/BI OR 741673-27-8/BI OR 741673-28-9/BI OR 741673-29-0/BI OR 741673-30-3/BI OR 741673-31-4/BI OR 741673-32-5/BI OR 741673-33-6/BI OR 741673-34-7/BI OR 741673-35-8/BI OR 741673-36-9/BI OR 741673-37-0/BI OR 741673-38-1/BI OR 741673-39-2/BI OR 741673-40-5/BI OR 741673-41-6/BI OR 741673-42-7/BI OR 741673-43-8/BI OR 741673-44-9/BI OR 741673-45-0/BI OR 741673-46-1/BI OR 741673-47-2/BI OR 741673-48-3/BI OR 741673-49-4/BI OR 741673-50-7/BI OR 741673-51-8/BI OR 741673-52-9/BI OR 741673-53-0/BI OR 741673-54-1/BI OR 741

L16 FILE 'CAPLUS' ENTERED AT 13:16:13 ON 02 MAY 2007  
1 SEA ABB=ON PLU=ON L15

FILE 'STNGUIDE' ENTERED AT 13:17:13 ON 02 MAY 2007

L17 FILE 'REGISTRY' ENTERED AT 13:22:27 ON 02 MAY 2007  
149780 SEA ABB=ON PLU=ON NC2NC3/ESS  
L18 27 SEA ABB=ON PLU=ON L17 AND L15  
D SCA  
E "PROPANEDIAMIDE, N-(5-BENZOYL-2,3,4,5-TETRAHYDRO-1-METHYL-2-O  
L19 27 SEA ABB=ON PLU=ON L12 AND L17

L20 FILE 'CAPLUS' ENTERED AT 13:36:08 ON 02 MAY 2007  
1 SEA ABB=ON PLU=ON L19

L21 FILE 'REGISTRY' ENTERED AT 13:38:20 ON 02 MAY 2007  
197 SEA ABB=ON PLU=ON L12 NOT L15

L22 FILE 'CAPLUS' ENTERED AT 13:38:39 ON 02 MAY 2007  
70 SEA ABB=ON PLU=ON L21  
L23 ANALYZE PLU=ON L13 1- RN : 5445 TERMS  
D

L24 FILE 'REGISTRY' ENTERED AT 13:40:57 ON 02 MAY 2007  
1 SEA ABB=ON PLU=ON 146420-49-7  
D SCA  
L25 369 SEA ABB=ON PLU=ON L12 NOT L24

L26 FILE 'CAPLUS' ENTERED AT 13:41:49 ON 02 MAY 2007  
65 SEA ABB=ON PLU=ON L25

L27 FILE 'REGISTRY' ENTERED AT 13:42:08 ON 02 MAY 2007  
1 SEA ABB=ON PLU=ON 13734-34-4  
D SCA  
L28 1 SEA ABB=ON PLU=ON 143301-52-4

D SCA  
 L29 1 SEA ABB=ON PLU=ON 147140-68-9  
 D SCA  
 L30 369 SEA ABB=ON PLU=ON L25 NOT (L28 OR L29)  
  
 FILE 'CAPLUS' ENTERED AT 13:44:33 ON 02 MAY 2007  
 L31 65 SEA ABB=ON PLU=ON L30  
  
 FILE 'STNGUIDE' ENTERED AT 13:45:14 ON 02 MAY 2007  
  
 FILE 'REGISTRY' ENTERED AT 13:48:54 ON 02 MAY 2007  
 D SCA L19  
 L32 0 SEA ABB=ON PLU=ON " PROPANEDIAMIDE, N-(5-BENZOYL-2,3,4,5-TETRAHYDRO-1-METHYL-2-OXO-1H-1,5-BENZODIAZEPIN-3-YL)-N'-[(3,5-DIFLUOROPHENYL)METHYL]-2-METHYL-"/CN  
 E "PROPANEDIAMIDE, N-(5-BENZOYL-2,3,4,5-TETRAHYDRO-1-METHYL-2-OXO-1H-1,5-BENZODIAZEPIN-3-YL)-N'-[(3,5-DIFLUOROPHENYL)METHYL]-2-METHYL-"/CN  
 E "PROPANEDIAMIDE, N-(5-BENZOYL-2,3,4,5-TETRAHYDRO-1-METHYL-2-OXO-1H-1,5-BENZODIAZEPIN-3-YL)-N'-[(3,5-DIFLUOROPHENYL)METHYL]-2-METHYL-"/CN  
 L33 1 SEA ABB=ON PLU=ON "PROPANEDIAMIDE, N-(5-BENZOYL-2,3,4,5-TETRAHYDRO-1-METHYL-2-OXO-1H-1,5-BENZODIAZEPIN-3-YL)-N'-[(3,5-DIFLUOROPHENYL)METHYL]-2-METHYL-"/CN  
 D SCA  
  
 FILE 'REGISTRY' ENTERED AT 13:51:39 ON 02 MAY 2007  
 D IDE L33  
 L34 STRUCTURE UPLOADED  
  
 FILE 'MARPAT' ENTERED AT 13:55:33 ON 02 MAY 2007  
 L35 9 SEA SSS SAM L9  
 L36 0 SEA SSS SAM L34  
 L37 2 SEA SSS FUL L34  
 L38 1 SEA ABB=ON PLU=ON L37/COM  
  
 FILE 'MARPAT' ENTERED AT 13:57:06 ON 02 MAY 2007  
 D STAT QUE L38  
 D IBIB ABS QHIT L38 1  
  
 FILE 'CAPLUS' ENTERED AT 13:58:13 ON 02 MAY 2007  
 L39 32 SEA ABB=ON PLU=ON GALLEY G?/AU  
 L40 4 SEA ABB=ON PLU=ON GOERGLER A?/AU  
 L41 297 SEA ABB=ON PLU=ON JACOBSEN H?/AU  
 L42 45 SEA ABB=ON PLU=ON KITAS E?/AU  
 L43 2834 SEA ABB=ON PLU=ON PETERS J?/AU  
 L44 9 SEA ABB=ON PLU=ON L39 AND (L40 OR L41 OR L42 OR L43)  
 L45 1 SEA ABB=ON PLU=ON L40 AND (L41 OR L42 OR L43)  
 L46 1 SEA ABB=ON PLU=ON L41 AND (L42 OR L43)  
 L47 3 SEA ABB=ON PLU=ON L42 AND L43  
 L48 9 SEA ABB=ON PLU=ON (L44 OR L45 OR L46 OR L47)  
 L49 2 SEA ABB=ON PLU=ON (L39 OR L40 OR L41 OR L42 OR L43) AND (L8 OR L26)  
  
 FILE 'REGISTRY' ENTERED AT 14:00:33 ON 02 MAY 2007  
  
 FILE 'CAPLUS' ENTERED AT 14:00:36 ON 02 MAY 2007  
 D STAT QUE L16  
 D STAT QUE L48  
 D STAT QUE L49  
 L50 9 SEA ABB=ON PLU=ON (L16 OR (L48 OR L49))  
 D IBIB ABS HITIND L50 1-9  
  
 FILE 'BEILSTEIN' ENTERED AT 14:01:53 ON 02 MAY 2007

L51           0 SEA SSS SAM L34  
L52           0 SEA SSS FUL L34

FILE 'REGISTRY' ENTERED AT 14:02:35 ON 02 MAY 2007

FILE 'CAPLUS' ENTERED AT 14:02:38 ON 02 MAY 2007

D STAT QUE L8

D STAT QUE L26

L53           64 SEA ABB=ON PLU=ON (L8 OR L26) NOT L50  
              D IBIB ABS HITSTR L53 1-64

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES:     1 MAY 2007   HIGHEST RN 934050-43-8

DICTIONARY FILE UPDATES:   1 MAY 2007   HIGHEST RN 934050-43-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

FILE CAPLUS

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FILE COVERS 1907 - 2 May 2007 VOL 146 ISS 19

FILE LAST UPDATED: 1 May 2007 (20070501/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

FILE STNGUIDE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Apr 27, 2007 (20070427/UP).

FILE MARPAT

FILE CONTENT: 1961-PRESENT VOL 146 ISS 18 (20070427/ED)

SOME MARPAT RECORDS ARE DERIVED FROM INPI DATA FOR 1961-1987

MOST RECENT CITATIONS FOR PATENTS FROM MAJOR ISSUING AGENCIES  
(COVERAGE TO THESE DATES IS NOT COMPLETE):

|    |              |    |     |      |
|----|--------------|----|-----|------|
| US | 2007060644   | 15 | MAR | 2007 |
| DE | 102006023116 | 15 | MAR | 2007 |
| EP | 1762248      | 14 | MAR | 2007 |
| JP | 2007059877   | 08 | MAR | 2007 |
| WO | 2007030662   | 15 | MAR | 2007 |
| GB | 2429975      | 14 | MAR | 2007 |
| FR | 2890657      | 16 | MAR | 2007 |
| RU | 2295953      | 27 | MAR | 2007 |
| CA | 2556850      | 24 | FEB | 2007 |

Expanded G-group definition display now available.

FILE BEILSTEIN

FILE LAST UPDATED ON April 02, 2007

FILE COVERS 1771 TO 2006.

**FILE CONTAINS 9,882,697 SUBSTANCES**

>>>PLEASE NOTE: Reaction Data and substance data are stored in separate documents and can not be searched together in one query. Reaction data for BEILSTEIN compounds may be displayed immediately with the display codes PRE (preparations) and REA (reactions). A substance answer set retrieved after the search for a chemical name, a compounds with available reaction information by combining with PRE/FA, REA/FA or more generally with RX/FA. The BEILSTEIN Registry Number (BRN) is the link between a BEILSTEIN compound and belonging reactions. For more detailed reaction searches BRNs can be searched as reaction partner BRNs Reactant BRN (RX.RBRN) or Product BRN (RX.PBRN).<<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

\*\*\*\*\*  
\* PLEASE NOTE THAT THERE ARE NO FORMATS FREE OF COST. \*  
\* SET NOTICE FEATURE: THE COST ESTIMATES CALCULATED FOR SET NOTICE \*  
\* ARE BASED ON THE HIGHEST PRICE CATEGORY. THEREFORE; THESE \*  
\* ESTIMATES MAY NOT REFLECT THE ACTUAL COSTS. \*  
\* FOR PRICE INFORMATION SEE HELP COST \*  
\*\*\*\*\*

**NEW**

\* PATENT NUMBERS (PN) AND BABS ACCESSION NUMBERS (BABSAN) CAN NOW BE SEARCHED, SELECTED AND TRANSFERRED.  
\* NEW DISPLAY FORMATS ALLREF, ALLP AND BABSAN SHOW ALL REFERENCES, ALL PATENT REFERENCES, OR ALL BABS ACCESSION NUMBERS FOR A COMPOUND AT A GLANCE.

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